



ABSTRACTS LEAFLET



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Chairmen

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Publi Créations

SO1. STANDARDS OF CARE FOR OBSESSIVE – COMPULSIVE DISORDER

S 0101 New findings from an International collaboration of Experts

Naomi Fineberg^{1,2,3}, J Menchon⁴, J Zohar⁵ and the International College of Obsessive-Compulsive Spectrum Disorders Working Group.

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Background: Obsessive-compulsive disorder (OCD) requires experienced staff to detect, diagnose and properly manage the disorder. Specialist assessment and care centres for OCD have been established, but there is no consensus regarding the key functions these units should perform.

Objectives: To improve the quality of clinical care and deliver the best treatment for patients with OCD, the International College of Obsessive-Compulsive Spectrum Disorders (ICOCS) has recommended standards of care that OCD centres should follow. This initiative also aims to ensure the validity and reliability of research results provided by different facilities and countries.

Methods: Quality standards were selected through a consensual procedure that gathered multiple opinions and points of view in an interactive and iterative way, enabling considerable feedback to be obtained from a multidisciplinary group of expert clinicians including psychiatrists, psychologists and mental health nurses from many different countries (Turkey, South Africa, UK, Sweden, USA, Israel, Netherlands, Bulgaria, Canada, Japan, Argentina, Hungary, Brazil and Australia). Standards were divided into (a) Recommended i.e. those that an OCD centre would be expected to meet and (b) Excellent i.e. those that while not essential, would increase the quality of care.

Findings: A set of agreed standards was proposed around the following domains; facilities, human resources, training, clinical assessment, management and follow-up and key quality indicators (Menchon et al. 2016).

Conclusions: This initiative establishes common international quality standards, some of which are aspirational, as a first step towards an international accreditation system for OCD centres. It represents a dynamic process, open to future advances and periodic review.

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2. Standards of care for obsessive-compulsive disorder centres. Int J Psychiatry Clin Pract. 2016 Sep;20(3):204-8.

S 0102 How should we treat resistant OCD?

Stefano Pallanti

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Resistance to treatment still represents a large percentage (40-60%) of OCD diagnoses.

Treatment resistance is defined as no response to a selective serotonin reuptake inhibitors (SSRIs) trial, whereas treatment refractoriness is defined as failing of at least two adequate trials with selective SSRIs and one with clomipramine. The first approach to resistant OCD is a qualitative evaluation of non-response, to identify and separate the dimensions of response and non-response.

A further step required in the assessment is the employ of a Cross-Cutting Symptom measure, which emphasize the value of a dimensional approach to diagnosis and covers a broad range of psychopathology, addressing 13 symptom domains.

Recently, a translational approach consistent with the Research Domain Criteria (RDoC) project represents a second step in treatment, with the employ of higher dosage of serotonergic agents and intravenous treatment, as well as an augmentation with ondansetron.

At a third level, strategies for resistant OCD may benefit from the employ of non-invasive neuromodulation techniques, such as repetitive Transcranial Magnetic Stimulation (rTMS).

Promising results have been shown with the stimulation of three main target areas: the dorsolateral prefrontal cortex (DLPFC), the orbitofrontal cortex (OFC) and, more recently, the supplementary motor area (SMA). Evidence is converging towards a greater efficacy of protocols targeting OFC and SMA.

SO2. COGNITION IN BIPOLAR DISORDER

S 0201 Morbidity of cognition in bipolar depression. Unmet need and design issues

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Cognitive complaints are common in patients with bipolar disorder and many patients show clinically relevant neurocognitive impairment even in the absence of memory-related symptoms. Major sources of cognitive and functional deficits are the presence of subthreshold depressive symptoms and comorbidities (hypothyroidism, diabetes, substance abuse). Sleep habits and exercise may also play a role. One of the main unmet needs in the management of bipolar disorder is the lack of available optimal treatment options for cognitive impairment in the context of bipolar disorder. Researchers are currently investigating a number of novel treatment targets, particularly the glutamatergic system, among others, in an attempt to develop a drug that will address these unmet needs in the management of cognitive dysfunction in bipolar disorder. Some stimulants, nutraceuticals, noradrenergic drugs such as modafinil, and certain antidepressants (vortioxetine) and antipsychotics (lurasidone) show some potential. Novel psychosocial interventions, such as functional remediation, may also be helpful. Trial design is critical to ensure assay sensitivity and to identify those therapies with potential pro-cognitive effects.

References:

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S 0202 The treatment of Cognitive problems in Bipolar Disorder

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Introduction: Cognitive dysfunction is an important aspect of bipolar disorder (BD) that includes problems with thinking, concentration and memory. Research suggests that the cognitive aspect of BD is highly prevalent and has a significant impact on patient functioning. Currently, cognitive dysfunction in BD is largely unrecognised, unmonitored and untreated. In this presentation I aim to define cognitive dysfunction in bipolar disorder and explore its detection and management, highlighting priority areas to be addressed. Treatment approaches (pharmacological, neurostimulation and cognitive remediation) will be discussed.

S 0203 Psychological treatments in Bipolar Disorder

Sameer Jauhar

King's College London, London, UK

In this talk I will go through guidelines for the psychological treatment of Bipolar disorder, with an emphasis on the recent National Institute for Health and Care Excellence Guidelines (NICE) guidelines. I will focus on the main meta-analyses that have been carried out, and illustrate how both evidence synthesis and analysis can lead to problems in interpretation.

S03. UPDATE ON TREATMENT RESISTANT DEPRESSION

S 0301 Update on the most advanced pharmacogenetic techniques and results

Chiara Fabbri

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Major depressive disorder is a heritable disease associated with a heavy burden in terms of disability and health expenditure. Despite a number of antidepressant drugs of different classes are available, inter-individual differences in efficacy are responsible for unsatisfactory response and remission rates. Since the finding that antidepressant response clusters in affected families, genetic polymorphisms have been considered a promising strategy to provide targeted treatments. Several candidate genes have been already included in pharmacogenetic assays that have been tested for clinical usefulness compared to treatment as usual and the results were quite encouraging. Meanwhile, new technologies were developed and tested at research level with the aim to provide improved clinical applications in the future. Particularly, finest genotyping methods including a range of different arrays able to capture genetic variations in critical regions of the genome (e.g. coding or functional regions) were developed, as well as new methods of analysis that work at multimarker level instead of working on single variants (e.g. molecular pathways or the whole genome through polygenic risk scores). Another critical point is the growth of Consortia that in the last years allowed the collection of samples with increasing size and provided the possibility of performing large meta-analysis at genome-wide level. Thanks to these improvements future clinical applications may include genotyping arrays designed to capture a number of relevant variants throughout the whole genome and classify the patient

within a spectrum of risk to be a non-responder to treatment or develop side effects. Examples of these new approaches and recent results will be presented.

S 0302 10 easy and effective suggestions to improve antidepressant effects

Laura Mandelli

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Lifestyle Medicine is a branch of medicine dealing with research, prevention and treatment of disorders caused by lifestyle factors such as nutrition, physical inactivity, chronic stress. Compelling evidence demonstrated a range of lifestyle factors involved in the pathogenesis of depression. Many lifestyle or environmental factors are mutable and can provide the basis of practical interventions for the management of depression. They include diet, physical exercise, sleep, recreational activities, socialization, relaxation & meditative techniques, nature-assisted therapy, animal/pet therapy and minimization/avoidance of smoking, alcohol or illicit substances. A more integrative approach for depression is encouraged and lifestyle modification should be a routine part of treatment and preventative efforts.

S 0303 How to save time: Criteria for the choice of the best antidepressant

Stefano Porcelli

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Several drugs are at present available for the treatment of a major depressive episode. The most used guidelines worldwide (i.e. NICE, APA, CANMAT, Maudsley's) provide some general indications for the antidepressant choice, such as the antidepressant class side effect profile, and the patient's pharmacological history and physical health status. However, these general indications do not allow to choose a tailored treatment for each patient, and often Clinicians make the final antidepressant choice on the basis of the personal experience and knowledge, resulting in a great variability of outcomes in real clinical practice. However, the knowledge advances reached in the recent years allow now to differentiate antidepressants on the basis of their tolerability profile, including the most common antidepressant side effects, such as sexual side effects, weight gain and insomnia/somnolence. Further, the presence of some comorbidities (e.g. panic disorder and generalized anxiety disorder) as well as of some symptoms (e.g. insomnia and irritability) has been associated with differential response to antidepressant drugs. Therefore, nowadays it is possible to personalize the antidepressant treatment in each patient, in order to increase its effectiveness and consequently the patient's compliance. Here, we provide some easy, timesaving criteria to guide the choice of antidepressant drug in the real clinical practice, according to the knowledge presently available. Considering the current pressure through the precision medicine, this clinical knowledge could be an initial framework to further integrate biological data, such as pharmacokinetics and pharmacogenetics ones, which unfortunately are still unsatisfactory to be translated in clinical practice.

S 0304 Evidence based treatment algorithm for THD

Daniel Souery

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Despite numerous advances in the available pharmacological options in the treatment of depression, as much as 30 to 40 % of patients remain ill despite adequate initial treatment. After failure to first-line treatment, most of the current guidelines recommend either switching or augmentation of the initial antidepressant. However, and despite the growing number of reviews on Treatment Resistant Depression (TRD) the data to guide later steps are sparse and did not significantly progressed during the last two decades.

This presentation will summarize the data from randomized controlled trials and meta-analyses. The augmentation, combination and switching strategies will be reviewed. In parallel to current treatment algorithms in TRD, several experimental pharmacological treatments alternatives have been explored and may be promising. Alternative compounds include CNS stimulants, ketamine or dopamine agonists. Non-pharmacological strategies including rTMS, DBS and VNS have also been investigated and should be considered in treatments algorithms.

Evidence based algorithms in TRD are clearly lacking and more research is needed to guide clinicians in the decision-making process. There is also a need to develop new treatments or treatment strategies targeting novel pathways in the management of TRD.

S04. REALLY RAPID RESPONSE ANTIDEPRESSANTS

S 0401 Onset of action of serotonin reuptake inhibitors: how slow or rapid is it?

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The assumption that selective serotonin reuptake inhibitors (SSRIs) require weeks of treatment to exert a clinical effect has markedly influenced the current view on their possible mechanism of action. However, the onset of action of these drugs is highly dependent on for which condition they are used. Thus, unlike patients with depression or anxiety disorders, those with premenstrual dysphoric disorder report a marked symptom reduction already within hours after the first tablet is given and a maximal response within one week. Likewise, certain side effects, such as nausea and interference with sexual function, also display a rapid onset of action. According to conventional wisdom, it takes 2-3 weeks of treatment before a symptom reduction is observed in depression; moreover, it has been claimed that also depressed patients may experience an initial aggravation of symptoms during the first days of treatment, including enhanced anxiety and increased suicidal ideation. The issue of onset of action and that of a possible initial symptom aggravation are however both controversial. We have hence now conducted a post hoc analysis of all relevant drug company-sponsored placebo-controlled trials in which any of the SSRIs citalopram, paroxetine or sertraline had been compared to placebo in depressed adults. Individual items of the Hamilton Depression Rating Scale were used to assess symptom improvement and deterioration, respectively.

The results indicate *i)* that SSRIs reduce mean ratings of depressed mood and suicidal ideation already after one week of treatment, *ii)* that they also induce a significant but small and transient increase in mean rating of somatic anxiety, but a

reduction in mean rating of psychic anxiety, during the first week, and *iii)* that a maximal antidepressant response (as expected) requires >6 weeks of drug administration. Implications of these results for the possible mechanism of action of these drugs will be discussed.

S 0402 Placebo controlled evidence of really rapid response in MDD

Kasper Siegfried

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Rapid acting antidepressants have been thought of since the early days of psychopharmacology research. Whereas electroconvulsive therapy, therapeutic sleep deprivation and to some extent light therapy exerts a rapid antidepressant response, monoamine based antidepressants always demonstrated a timelack of 10-14 days. Recently, with the introduction of ketamine in antidepressant treatment, it could be demonstrated that this compound exhibits rapid antidepressant efficacy when administered in sub-anesthetic dosages. Until now twelve clinical trials investigating unipolar depressed patients have been published in the literature. Additional studies in bipolar patients are also available. Antidepressant response rates on primary outcome measures after 24 hours were 61% on average and the mean reduction of Hamilton Depression score is 10.9 points for this the acute time course studied. In the studies published, ketamine was always superior to placebo. The most common side-effects were dizziness, blurred vision, restlessness, nausea/vomiting and headache. All of them were reversible. Based on the evidence we have until now it is apparent that ketamine constitutes a novel, rapid and efficacious treatment option for patients suffering from treatment resistant depression and additionally exhibits a rapid and significant anti-suicidal effect. However, limited duration of treatment response with high relapse rates within the first month after treatment demand for strategies to prolong ketamine's efficacy.

S05. ZIKA VIRUS DISEASE AND CNS CONSEQUENCES

S 0501 Zika virus disease and CNS consequences

Fabrizio Pregliasco

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The rise in the spread of Zika virus in Brazil has been accompanied by an unprecedented rise in the number of children being born with unusually small heads—identified as microcephaly. In addition, several countries, including Brazil, reported a steep increase in Guillain-Barré syndrome—a neurological disorder that could lead to paralysis and death. Based on a systematic review of the literature up to 30 May 2016, WHO has concluded that Zika virus infection during pregnancy is a cause of congenital brain abnormalities, including microcephaly; and that Zika virus is a trigger of Guillain-Barré syndrome. Zika virus continues to spread geographically to areas where mosquitoes are present that can transmit the virus.

Zika virus is primarily transmitted to people through the bite of an infected *Aedes* mosquito, which can also transmit chikungunya, dengue and yellow fever.

Zika virus can also be transmitted through sex and has been detected in semen, blood, urine, amniotic fluids, saliva as well as body fluids found in the brain and spinal cord.

Zika virus may present a risk to blood safety. People who have donated blood are encouraged to report to the blood

transfusion service if they subsequently get symptoms of Zika virus infection, or if they are diagnosed with recent Zika virus infection within 14 days after blood donation.

Zika virus usually causes mild illness. Symptoms most commonly include a slight fever or rash, appearing a few days after a person is bitten by an infected mosquito. Although many will not develop any symptoms at all, others may also suffer from conjunctivitis, muscle and joint pain, and feel tired. The symptoms usually last from 2 to 7 days.

Based on a newly published systematic review of current research, WHO has reaffirmed its position that Zika virus infection during pregnancy is a cause of congenital brain abnormalities, including microcephaly, and refined its position on the relationship between Zika virus infection and Guillain-Barré syndrome, stating that Zika virus infection is a trigger of Guillain-Barré syndrome.

Guillain-Barré syndrome and microcephaly are conditions with a number of underlying causes, triggers and neurological effects.

Microcephaly can result, among others, from infections during pregnancy, exposure to toxic chemicals and genetic abnormalities.

Guillain-Barré syndrome is often preceded by an infection. This could be a bacterial or viral infection. The syndrome may also be triggered by vaccine administration or surgery.

Scientists do not exclude the possibility that other factors may combine with Zika virus infection to cause neurological disorders. A better understanding of Zika virus infection and its complications is one of the remaining research priorities.

S06. NUTRITION AND DEPRESSION

S 0601 The role of nutrition in managing depression

Ted Dinan

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Depression is increasingly recognised as a disorder associated with inflammation. Many patients with depression have elevations in acute phase proteins such as CRP and pro-inflammatory cytokines such as TNF alpha, IL-1 and IL-6. The role of key components in the Western diet have come under scrutiny in relation to the genesis of this inflammatory phenotype. A Mediterranean diet decreases inflammatory molecules and is associated with lower levels of depression. The gut microbiota is an important mediator between diet and mood. The microbiota is significantly influenced by diet and also by antibiotics and a variety of other medications. A less diverse diet is associated with reduced microbial diversity and negative health consequences. Polyunsaturated fatty acids found in fish may have a positive impact on mood and lead to increased diversity of the microbiota. While poor diet may increase the risk of depression, for many patients, diet deteriorates during depressive episodes. We have found a narrowing in the diversity of the microbiota in patient with major depression. There is increasing evidence that prebiotics in the diet which increase the levels of 'good' bacteria positively influence stress responses and attenuate cortisol release. Whether such prebiotics or probiotics are effective in treating depression has yet to be convincingly demonstrated. For decades cardiologists have given dietary advice to their patients. It is now time for psychiatrists to advise depressed patients regarding appropriate diet and exercise.

S07. NEW THOUGHTS ON TREATMENT OF ANXIETY DISORDERS

S 0701 New treatments and strategies in anxiety disorders

Borwin Bandelow

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Anxiety Disorders (panic disorder/agoraphobia, generalized anxiety disorder, and social anxiety disorder) can be treated successfully with psychological treatments and/or medications. Treatment recommendations are based on international guidelines for the treatment of anxiety disorder (1). First line drug treatments for these disorders are selective serotonin reuptake inhibitors (SSRIs) such as sertraline, and serotonin-noradrenalin reuptake inhibitors (SNRIs). For GAD, the calcium channel modulator pregabalin is a treatment option. Tricyclic antidepressants (TCAs) are equally effective for some disorders, but many are less well tolerated than the SSRIs/SNRIs. The use of benzodiazepines should be restricted to treatment-resistant cases when the patient does not have a history of substance abuse disorders. Newer studies with anti-anxiety drugs will be reviewed. A recent meta-analysis assessing the pre-post effect sizes of all available treatments showed large differences between the available drugs (2). Medications had higher effect sizes than psychotherapies. It is a common opinion that patients treated with drugs show immediate relapse after stopping medication, whereas gains of psychological therapies are maintained for months or years after treatment termination. A new meta-analysis comparing long-term effects with CBT and medications will be presented.

References:

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S 0702 Treating patients with comorbid anxiety and substance use disorders

David Baldwin

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Anxiety disorders are often present but unrecognised in patients with substance use disorders, and substance use disorders are common but often go unrecognised in patients with anxiety disorders. The comorbid condition may be pivotal in motivating someone to seek treatment, so comorbidity prevalence rates are higher in clinical than community samples. Unless there is a clear history of a long-standing anxiety disorder predating substance use problems, it can be hard to establish whether the anxiety disorder is primary or secondary in patients with comorbid conditions. It should be remembered that comorbidity of anxiety and substance use disorders may indicate an underlying mood disorder or the presence of personality disorder. There have been relatively few randomised controlled trials specifically targeted at patients with comorbid conditions. This presentation will summarise current evidence and conclude with reviewing recommendations for managing comorbid patients in clinical practice.

S 0703 Pain, Depression and Anxiety

Robert Peveler

University of Southampton, Southampton, UK

The current approach to the classification of anxiety and depressive disorders is acknowledged to be imperfect. Classification is made difficult by a number of factors, including the absence of clear boundaries between clinically described phenotypes, and a lack of reliable biomarkers. Historically, epidemiological studies have tended to focus on selected patient samples recruited in secondary care psychiatry settings, neglecting the fact that most depressive and anxiety disorders are encountered in primary care and general health care settings. Recently, more inclusive studies have emphasized the extent of the overlap between depressive and anxiety disorders and common physical health problems including diabetes, heart disease, respiratory disease and chronic painful conditions. Advances in our understanding of the neurobiology of anxiety and depressive disorders have highlighted common mechanisms which these conditions share with physical illnesses, including chronic pain, such as alterations in monoamine pathways, and the involvement of inflammatory processes and neurotrophic factors. This new knowledge has implications for all aspects of clinical management of these disorders including assessment, diagnosis and classification, treatment and outcome. Future clinical education and research should be conducted in the light of these findings.

S08. NEW INSIGHTS IN THE TREATMENT OF DEPRESSION

S 0801 Regulatory issues with treatments in depression and anxiety

Filippo Drago

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Currently available antidepressant drugs, such as Selective Serotonin Reuptake Inhibitors (SSRIs) and Serotonin and Noradrenaline Reuptake Inhibitors (SNRIs), provide a useful therapeutic tool for the treatment of depressive disorders, but approximately 30% of patients with major depressive disorder (MDD) fail to respond to these drug treatments. Innovation in the field of mood disorders can stem only from the identification of new pharmacological targets and the development of antidepressant drugs with a novel mechanism of action finally leading to increasing remission rates.

Furthermore new regulatory procedures should be adopted with these innovative antidepressants.

Recently a nasal spray containing esketamine earned a coveted 'breakthrough therapy designation' from the US Food and Drug Administration. The designation allows its manufacturer to fast-track esketamine through the regulatory process.

Approval of new drugs for depressive disorders (or new indications for drugs already marketed) is particularly challenging. There are a number of specific concerns that should be addressed when designing clinical trials with psychotropic drugs and in particular with antidepressant drugs:

- several active treatments are already available
- rates of spontaneous remission are high
- placebo and active treatment response is erratic and variable, and
- outcome measures are not clearly defined.

In terms of study design EMA recommends the development of three-arm studies comparing the new product with placebo

and an active comparator for the treatment of different pathologies (unipolar depression, bipolar mania, bipolar depression, post-traumatic stress disorder, generalized anxiety disorder, panic disorder, social anxiety disorder, and obsessive compulsive disorder). In treatment-resistant unipolar depression the EMA requires superiority to an active comparator with a similar pharmacological profile. For the long-term treatment phase, EMA suggests the development of two-arm placebo-controlled withdrawal studies, where responders to an open trial of the new treatment are randomly allocated to placebo versus continuation with the same treatment, in order to demonstrate superiority to placebo.

Guidelines provide a basis for harmonization of requirements for the demonstration of quality, safety, and efficacy. Some of these guidelines are under revision, for example that on clinical investigation of medicinal products in the treatment of depression and bipolar disorder.

S 0802 New steps in personalized treatment in depression and anxiety

Alessandro Serretti, Chiara Fabbri MD, Diego Albani PhD, Siegfried Kasper MD, PhD, Joseph Zohar MD, PhD, Daniel Souery MD, Stuart Montgomery MD, PhD, Julien Mendlewicz MD, PhD,
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Treatment resistant depression (TRD) is a common complication (~1/3 of patients) of major depressive disorder (MDD) that contributes to the huge personal and socio-economic burden of the disease. Genetic variants are key modulators of antidepressant efficacy, but previous genome-wide association studies (GWAS) have generally failed to identify the polymorphisms involved. Whole exome sequencing and network analysis represent promising and innovative strategies.

47 patients with diagnosis of MDD with current episode of at least moderate severity were selected if they satisfied the definition of TRD or were optimal antidepressant responders. TRD was defined as lack of response to at least two antidepressant trials while optimal responders satisfied remission criteria after the first antidepressant trial. Next generation exome sequencing was performed from whole blood. After quality control (fastqc) and alignment to the reference human genome (ENSEMBL, release 83), gene-based tests were performed by PlinkSeq and enrichment analysis was performed using the Cytoscape GeneMania plugin to identify networks involved in TRD. Replication of results in the STAR*D study was attempted using a comparable phenotype (remission to the first antidepressant trial (n=583) vs. non-remission to the fourth antidepressant trial (n=48)).

24 TRD patients and 23 good responders were included in the study. 967,208 variants were available. Initial pathway analysis based on known gene product interactions identified some networks that were associated with TRD status, including the neurotrophin signalling pathway and other pathways involved in cell growth. Particularly a group of genes belonging to a network involved in metaphase-anaphase transition of mitotic cell cycle was replicated in STAR*D. Final analyses will be presented at the meeting.

Genes involved in cell growth and in metaphase-anaphase transition of mitotic cell cycle may have a relevant role in the risk of TRD. Components of this network (the CDC20/APC complex) were demonstrated to have a pivotal role in controlling dendrite growth in post-mitotic neurons, a process that is essential for antidepressant response. Future directions

include whole exome sequencing in a larger sample to replicate these findings.

References:

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SO9. ADVANCE IN BIPOLAR DISORDER

S 0901 Staging Bipolar Disorder

Iria Grande

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The natural history of bipolar disorder progression involves relapses, an increasing severity of subclinical symptoms as well as comorbidity with other psychiatric and medical conditions. Repeated illness episodes have an impact not only on illness severity but also on the level of disability. Staging models are widely used in medicine in progressive disorders. Therefore, staging models in bipolar disorder could not only help to understand and classify the illness progression but also, and especially, help estimate prognosis and guide therapy. The model of staging in bipolar disorder suggests a progression from prodromal to more severe and refractory presentations, highlighting the relevance of early intervention. Furthermore, early treatment should demonstrably increase the chance of cure or at least reduce mortality and disability in patients with bipolar disorder.

S 0902 Antidepressant in bipolar depression

Andrea Murru

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One of the most controversial issue in BD is the use of ADs, since it has been typically associated with the risk of (hypo) manic or mixed switch, with the risk of suicide or with a rapid cycling course. The International Society for Bipolar Disorders (ISBD) has recently assembled an international group of experts to find a clinically and evidence based consensus on this issue. This consensus basically concluded that the use of ADs to treat depressive phases of BD should neither be condemned nor endorsed without carefully evaluating individual clinical cases. In general, AD monotherapy should be avoided in BDI. If ADs are used in BDI, they should be prescribed along with a mood-stabilizing treatment. In BDI and II depression with two or more concomitant core manic symptoms, with a history of rapid cycling or mood instability ADs should be used with caution, due to the risk of the worsening of the illness course. Treatment with some ADs in bipolar II disorder appears to be relatively well tolerated. Tri- and tetracyclics ADs and venlafaxine, which appear to carry a particularly high risk of inducing pathologically elevated states of mood and behaviour, should be used with caution.

P.01 Suicide and other causes of death among elderly patients with dementia

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Objective: Dementia is a prevalent disorder of late life and is frequently complicated by psychiatric symptoms. Patients with dementia may be at increased risk of mortality than the general population, but results of previous studies are limited. The aim of this study is to estimate the suicide rate and accidental death rate based on the clinical case registry among patients diagnosed with dementia.

Methods: The target sample consists of 119 patients diagnosed with dementia who were evaluated at the Clinical Research Center for Dementia of Korea (CREDOS) from January 25 to December 213. Information about whether the patients had committed suicide or had died in any kinds of accidents by December 31, 213 was obtained from the database of the National Statistical Office (NSO). The standardized mortality ratio (SMR) for suicide and accidental death among dementia patients were analyzed.

Results: The SMR for suicide in dementia patients showed decreasing tendency as the cognitive dementia rating (CDR) scores got higher (very mild 1.22, 95% CI .52-2.39, mild .91, 95% CI .33-1.99, moderate .44, 95% CI .11-2.45). Dementia subtypes were not significantly associated with deaths by suicide.

The SMR for accidental death in dementia patients showed increasing tendency as the CDR score got higher (mild 1.64, 95% CI 1.3-2.49, moderate 2.55, 95% CI 1.32-4.46, severe 4.69, 95% CI 1.28-12.). Also, association between increase in SMR for accidental death and later onset dementia were found (SMR=1.99, 95% CI 1.47-2.63). Analysis according to the dementia subtypes were as follows. The SMR for accidental death was higher in Alzheimer's disease (SMR=1.53, 95% CI 1.9-2.1), and vascular dementia (SMR=2.98, 95% CI 1.67-4.91) while it was lower in MCI (SMR=.56, 95% CI .31-.94) than the corresponding national rates.

Conclusion: Death by suicide among dementia patients did not increase significantly. However, the risk of accidental death was higher in severe form of dementia and late onset.

P.02 Anxiety or agitation in mood disorder with mixed features: A review with a focus on validity as a dimensional criterion

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Background: The diagnostic validity of mixed features, excluding anxiety or psychomotor agitation in mood disorders, has not yet been fully examined.

Method: PubMed and relevant English-language literature (regardless of year) were searched. Keywords were mixed or mixed state or mixed features or mixed episode and anxious or anxiety or agitation and bipolar disorder or depressive disorder or mood disorder or affective disorder.

Results: Most studies on anxiety or psychomotor agitation have included a significant correlation relevant to the "with mixed features" specifier, although it is common in both poles of mood episodes regardless of the predominant polarity. There is some confusion between the characteristic of classical mixed states and the definition of the mixed features specifier with the newly added anxious distress specifier in DSM-5, specifically, whether to include anxiety and agitation as significant characteristics. This change is of concern because a large proportion of patients with mixed features are now unspecified, and this may influence treatment planning and prognosis.

Conclusions: The findings of our review suggest that anxiety and psychomotor agitation can be core symptoms in mood episodes with mixed features and important clinical clues for prediction of treatment effects and disease course.

P.03 Predictors of a shorter time to recurrence in patients with bipolar disorder: Medication during the acute and maintenance phases and other clinical factors

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Objective: The present study was conducted to compare the effects of pharmacological treatments used in actual clinical practice during the acute and maintenance phases of mood episodes between a shorter time to recurrence group (<12 months) and a longer time to recurrence group (≥12 months). This study also examined the associations between duration of recurrence and sociodemographic and clinical characteristics.

Methods: To evaluate the effects of the pharmacological treatments, the discharge medication for the prior episode was considered the acute treatment and the medication used during the week prior to the index episode at the outpatient clinic was considered the maintenance treatment. Additionally, the charts were reviewed to examine a variety of demographic and clinical characteristics.

Results: Patients in the shorter time to recurrence group were more likely to be unmarried and/or unemployed, have had a previous hospital admission for a mood episode, and have used antidepressant drugs during the acute phase than those in the longer time to recurrence group. Patients in the shorter time to recurrence group were also less likely to use olanzapine, SNRIs, or mood stabilizer monotherapy as a maintenance treatment than were patients in the longer time to recurrence group.

Conclusions: Predictors for shorter time to recurrence were associated with previous hospital admissions for a mood episode, being unmarried and/or unemployed, and antidepressant use during the acute phase. However, olanzapine or SNRI use or mood stabilizer monotherapy during the maintenance phase were protective factors.

P.04 Obesity and Its Potential Effects on Antidepressant Treatment Outcomes in Patients with Depressive Disorders: A Literature Review

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Accumulating evidence regarding clinical, neurobiological, genetic, and environmental factors suggests a bidirectional link between obesity and depressive disorders. Although a few studies have investigated the link between obesity/excess body weight and the response to antidepressants in depressive disorders, the effect of weight on treatment response remains poorly understood. In this review, we summarized recent data regarding the relationship between the response to antidepressants and obesity/excess body weight in clinical studies of patients with depressive disorders. Although several studies indicated an association between obesity/excess body weight and poor antidepressant responses, it is difficult to draw definitive conclusions due to the variability of subject composition and methodological differences among studies. Especially, differences in sex, age and menopausal status, depressive symptom subtypes, and antidepressants administered may have caused inconsistencies in the results among studies. The relationship between obesity/excess body weight and antidepressant responses should be investigated further in high-powered studies addressing the differential effects on subject characteristics and treatment. Moreover, future research should focus on the roles of mediating factors, such as inflammatory markers and neurocognitive performance, which may alter the antidepressant treatment outcome in patients with comorbid obesity and depressive disorder.

P.05 BDNF in the prediction of response to acute antidepressant treatment in depressive patients.

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Background: Some, but not all, studies have shown that the increase of serum/plasma level of BDNF (Is/pBDNF) after one or two weeks of antidepressant intervention may predict the response to antidepressant treatment. The aim of the 6-week, open-label study was: 1. to assess efficacy of Is/p BDNF at week 1 of treatment in the prediction of response, 2. to compare predictive efficacy of Is/pBDNF at week 1 and early reduction of depressive symptoms at week 1 and 2 (reduction of MADRS score \geq 2%; RM \geq 2%W1/2).

Methods: All patients (n=38) were hospitalized and treated with various SSRIs according to the clinical judgment of the attending psychiatrists, taking into account the history of previous treatments. Depressive symptoms were assessed using MADRS at baseline, week 1, 2 and the end of the treatment.

Results: Twenty-one patients (55%) achieved a response (reduction of MADRS score \geq 5%) to SSRIs. There were no significant differences between responders and non-responders in s/pBDNF levels at baseline and week 1. We did not find difference in the predictive ability of both parameters in term of AUC of ROC analysis (IsBDNF-AUC=.57, 95%CI .4-.73,

accuracy-.55; IpBDNF-AUC= .6, 95% .43-.76, accuracy-.61; p=.77). RM \geq 2%W2 has achieved significantly higher value of AUC (.83, 95%CI-.67-.97; accuracy-.84) than RM \geq 2%W1 (.66, 95%CI-.49-.81; accuracy-.63; p=.3) and Is/pBDNF (p=.3/.2).

Limits of the study: relatively small sample size, using of various SSRIs, open-label study, no-placebo arm

Conclusion: The identification of early increase of s/pBDNF as a useful predictor of antidepressant response seems to be premature and needs further evaluation.

Conflicts of interest and source of funding: This study was supported by the grants of Ministry of Health of Czech Republic AZV CR 15-299A, the project Nr. LO1611 with a financial support from the MEYS under the NPU I program, MH CZ - DRO (NIMH-CZ, 23752) and by the project „National Institute of Mental Health (NIMH-CZ)“, number ED2.1./3.78 and the European Regional Development Fund. All authors declare that they have no conflicts of interest.

P.06 Mental Disorders in the elderly based on the International Classification of Functioning, Disability and Health (MentDis_ICF65+)

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Background/Aim: Due to the progressive increase in average life expectancy, and to the absence of specific diagnostic criteria, research on mental health in the elderly has recently become a topic of interest. This study, as part of the European based MentDis_ICF65+, analyzed the data of the Italian center that used a specific tool to evaluate mental health in the elderly, to collect epidemiological data, and to evaluate implications on disability.

Methods: MentDis_ICF65+ is a multi-centric study with an age-stratified random sample of 3142 people in 6 countries (Italy, Germany, Israel, Switzerland, Spain, Great Britain), aged between 65-84 years old and residing in the areas of interest. The reliability of the instrument, CIDI65+, a modified version of the Composite International Diagnostic Interview, was assessed during a pilot phase. CIDI65+ was administered at time zero and after 12 months. Even if CIDI65+ takes into account specific aspects of cognition in the elderly, cognitive deficits were screened using Mini Mental State Examination, and a score lower than 27/30 was an exclusion criteria.

Results: In the Italian sample (n= 518), we found that 27.8% of the subjects presented at least one mental disorder in last 12 months, mostly mood and anxiety disorders, with a prevalence of Major Depressive Disorder (MDD) of 10.6%. As reported elsewhere, significant differences between centers were revealed, e.g. Ferrara-Italy, claims the lowest rates of mood and anxiety disorders, compared to other centers. In addition, we found statistical significant association with some socio-demographic variables, e.g. women were the most affected by mood and anxiety disorders.

Conclusions: In agreement with the MentDIS-ICF65+, a high frequency of mental disorders in the elderly was found in Italy, (especially MDD), compared to previous studies. Higher prevalence of MDD can reflect a better accuracy of the CIDI65+. Results lead to improve diagnosis and treatment of psychopathological processes in the third age..

P.07 Relationship between director leadership of community mental health center and organizational effectiveness in Korea

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Background: The present study was intended to investigate leadership types by the director of community mental health centers and organizational effectiveness of members, and analyze the influence of the leadership on organizational effectiveness.

Methods: The 326 participants were recruited from 32 mental health centers in Gyeonggi province. Two hundred seventeen subjects were responding to the survey (response rate: 67%) and 215 subjects were used in analysis. Multifactor Leadership Questionnaire-5X was used for director leadership of community mental health center (transformational and transactional leadership). The organizational effectiveness including job satisfaction, organizational commitment, and turnover intention of the members at the mental health centers was investigated.

Results: The transformational and transactional leadership by the director of mental health centers had a positive correlation with job satisfaction ($r=.383$, $p<.1$: $r=.424$, $p>.1$) and organizational commitment ($r=.418$, $p>.1$: $r=.424$, $p>.1$) of organizational effectiveness, and had a negative correlation with turnover intention ($r=-.366$, $p<.1$: $r=-.36$, $p<.1$). The transformational leadership significantly affected job satisfaction and turnover intention and the transactional leadership influenced only organizational commitment.

Conclusion: The present study firstly investigated the influence of the leadership by the directors of community mental health centers on organizational effectiveness in South Korea. The leadership by the director of community mental health centers might affect the organization effectiveness on community mental health centers. Therefore, the director of mental health center had to increase organizational effectiveness by combination with transformational leadership and transactional leadership.

P.08 Religiosity on stable patients with schizophrenia is associated with empathic perspective taking variations

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Background: The relationship between religiosity and empathy has not been demonstrated in schizophrenia.

Aim and Methods: Religiosity and empathic attitudes were studied in 81 stable schizophrenic patients in comparison with 95 healthy controls, by administering the Kapogiannis Religiosity Scale and Interpersonal Reactivity Scale Index (IRI) adapted to Spanish.

Results: Patients with schizophrenia showed when compared to healthy controls, higher religiousness overall scores (patients=82.6±3.6 vs. controls=57.2±25.5; $p<.1$), lower interpersonal reactivity scores on perspective taking (patients=23.3±4.2 vs. controls=25.1±4.2; $p=.8$) and empathic concern (patients=25.8±4.6 vs. controls=27.1±3.4; $p=.39$), but increased personal distress (patients=2.9±5.3 vs. controls=17.7±4.8; $p<.1$). Regression analyses found an

association between religiosity overall scores and empathic perspective taking in patients ($\beta=.24$; $p=.3$) after adjusting for age ($\beta=.18$, $p=.9$), gender ($\beta=.29$; $p=.8$) and psychotic symptoms (PANSS positive scores $\beta=.44$; $p<.1$; PANSS negative scores $\beta=-.4$; $p=.1$). Furthermore, moral relativism (non-religious pragmatism) showed influence on perspective taking ($\beta=.277$; $p=.12$) only in patients.

Conclusion: Prominent religion beliefs combined anomalous cognitive empathy within stable schizophrenics could perhaps result from an over-attribution of agency and the overextension of theory of mind towards religious ideation. The link of moral relativism with perspective taking, might reflect that difficulties on decision-making can be based on handicaps with the ability to adopt other's point of view.

P.09 Modulating effects of chronic vitamin D3 hormone administration on depression-like behavior in the adult female rats after long-term ovariectomy

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The present preclinical study was created to determine the therapeutic effects of vitamin D hormone treatment as an adjunctive therapy alone or in a combination with low dose of 17 β -estradiol on depression-like behavior of female rats after long-term absence of estrogen. Accordingly, the aim of the current study was to examine the effects of chronic cholecalciferol administration (1., 2.5 or 5. mg/kg/day, s.c., once daily, for 14 days) on depression-like behavior following long-term ovariectomy (12 weeks) in female rats. Cholecalciferol was administered to the ovariectomized (OVX) rats and OVX rats treated with 17 β -estradiol after long-term absence of estrogen (17 β -E₂, .5 μ g/rat, s.c., once daily, for 14 days). Depression-like behavior was assessed in the forced swimming test (FST), locomotor and grooming activities were assessed in the open field test (OFT). Cholecalciferol in low (1. mg/kg/day, s.c.) dose alone or in combination with 17 β -E₂-induced antidepressant-like effects in OVX and OVX rats treated with 17 β -E₂ after long-term absence of estrogen as evidenced in the FST, and increased grooming activity in the OFT. The present data of our preclinical study indicates that chronic cholecalciferol in a low dose treatment on affective-related behavior after impairment induced by long-term ovariectomy can be explained by its direct or indirect dual action on emotional functions of the brains. The data also indicate that the combination of cholecalciferol in low dose and 17 β -E₂ is more effective than 17 β -E₂ alone in OVX rats inducing a more profound antidepressant-like effect in the FST. This work promotes more effective creating of the novel therapeutic targets and strategies for depression treatment in subjects with long-term estrogen deficiency.

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P.10 The effect of a nurse-assisted depression support group

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Background/Aims: The support system, such as support groups (SG) and peer-support groups (PSG) for people with depression, is insufficient in Japan. To meet the need for community based self-help group activities, we established a nurse-assisted SG for people with depression based on the clubhouse model six years ago. The purpose of this study is to evaluate the effect of this SG and to investigate the possibility of transition into PSG.

Methods: Subjects were 16 SG members who were diagnosed with major depression or bipolar disorders. They were residents of Ishikawa Prefecture. The sampling data of the interaction effects of the SG was ethnomethodologically analyzed. We attended the SG sessions every time as regular members and observed the subjects' interpersonal conversations and actions. Data was collected by observation and semi-structured interviews after obtaining informed consent. The research term was from April, 213 to May, 216. The study was conducted after obtaining the approval from the Ethical Committee of Kanazawa University.

Results: The results suggested that subjects were suffering from feelings of isolation in daily living, such as 'agony associated with depression symptoms' and 'sadness caused by not being understood by the people around them'. But the SG was a place where they were able to 'share their depression with others' and 'feel satisfaction as a group member'. The SG was an important place where people with depression could talk about their pain with one another.

Conclusions: The study demonstrated that member autonomy can be increased via role assignments and by accommodating physical conditions. We also found out the importance of supporting SG members through fostering leadership and self-help abilities before transitioning into PSG.

P.11 Side Effects Breaking The Blind Does Not Explain The Antidepressant Effects Of The Selective Serotonin Reuptake Inhibitors Paroxetine And Citalopram

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Background/Aims: According to a theory that has recently received significant coverage, the capability of antidepressants to outperform placebo in controlled trials is not related to any specific antidepressant properties but merely a consequence of the side effects of the drugs increasing the expectancy of improvement by making the patient realize that he/she has not been given placebo. This study investigated whether the presence of adverse events is necessary for antidepressants to outperform placebo.

Methods: Pooled patient-level, post-hoc analyses of all company-sponsored, acute-phase, placebo-controlled trials using the Hamilton Depression Rating Scale (HDRS) and conducted to evaluate the effect of citalopram and paroxetine in adult major depression were undertaken. The single item *depressed mood*, a more sensitive measure to detect an antidepressant signal than the conventional one, i.e. the sum score of all HDRS items (*HDRS-17-sum*), was regarded as the primary effect parameter whereas the *HDRS-17-sum* was used as a secondary effect parameter. Three comparisons were undertaken: (1) all placebo-treated patients vs all actively-treated patients, (2) all placebo-treated patients versus actively-treated patients without early (week 1-2) adverse events, and (3) placebo-treated patients without early adverse

events versus actively-treated patients without early adverse events.

Results: Paroxetine and citalopram outperformed their respective placebo groups when all patients were included (ES .43, $p < .1$; ES .33, $p < .1$). When including only those actively-treated patients that did not report adverse events both drugs also outperformed all placebo-treated patients (ES .3, $p < .1$; ES .38, $p < .1$). Similarly, when excluding all patients who reported adverse events regardless of treatment both active drugs yielded significantly larger improvements in *depressed mood* (ES .33, $p < .1$; ES .43, $p < .1$). The results with regards to *HDRS-17-sum* resembled those of the primary analyses.

Conclusions: SSRIs outperforming placebo also in subjects not reporting side effects argues against the hypothesis that side effects breaking the blind is a major contributor to the antidepressant efficacy of the SSRIs.

P.12 Development and Validation of the Korean Personality Rating Scale for Children into Korean Sign Language (KPRC-KSL)

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Children of deaf adult(CODA) are vulnerable to mood disorder caused by limited communication with parents and social prejudice against family with disabled member. Also they often have adjustment problems such as social isolation and interpersonal problems. However, written psychological assessment tools are not preferred for deaf individuals because of their low literacy. Therefore it is difficult to assess and intervene in their children by using written questionnaire. The purpose of this study was to develop and examine reliability and validity of sign language version of the Korean Personality Rating Scale for Children(KPRC), parent-rating form to assess children's emotional and behavioral problems. In this study, text items of original KPRC were revised to help deaf persons understand more easily, and from which the sign language video version KPRC(KPRC-KSL) was made. In order to examine reliability and validity on the KPRC-KSL, deaf who have 3-17 years child(n=1) performed KPRC-KSL and test-retest was carried out for 3 deaf persons. Bilinguals in Korean and Korean sign language(n=3) filled out KPRC-KSL and original KPRC to verify similarity between both assessment tools. In order to examine inter-rater agreement, Self-Report form of KPRC had been carried out on CODAs of deaf participants(n=3) and compared with their parent's report. The results showed that KPRC-KSL had acceptable levels of internal consistency(Cronbach's $\alpha=.65\sim.85$) and test-retest reliability($r=.75\sim.85$). KPRC-KSL and original KPRC had significant correlation between most of scales($r=.41\sim.75$). Inter-rater differences of subscales of KPRC-KSL range of Cohen's d was .48 ~ .64. These findings indicate that each subscale of KPRC-KSL and original KPRC measured similar characteristics and there is no difference between parent and children's report on children's mental health problem. These results support that KPRC-KSL is reliable and valid assessment and it can be useful for detecting mental health problem of CODA.

P.13 A study for Development of the Beck Hopelessness Scale
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Hopeless is noted to variable predicting suicide risk as feature of depression. Deaf persons impaired auditory at language development period experience difficulties in interpersonal relationships because of restrictions of communication and have affective vulnerability. Deaf persons have difficulty in reading and understanding texts, so that there is a need to that psychological examinations are made in sign language(korean sign language, KSL) for deaf persons to understand easily. However, there is rarely psychological assessment tools evaluating their affects. This study developed sign language text version of K-BHS for deaf persons and sign language video version of K-BHS. Original version of K-BHS and text version of K-BHS was completed for 5 hearing persons to verify reliability and validity. Video version of K-BHS was conducted for 227 deaf persons, test-retest was performed for 16 deaf persons. Text version and video version of K-BHS was conducted 24 bilingual in Korean and sign language. For identifying relationship between hopeless and depression of deaf persons, original version of K-BDI-II and sign language video version of K-BDI-II(K-BDI-II-KSL) was carried out for hearing persons, deaf persons and bilingual persons. Cronbach's α of original version and text version of K-BHS is .897, and .854 and Cohen's d between original and text version was .139. Correlation between original and text version of K-BHS was statistically significant. Also correlation between original and video version of K-BHS was significant. Cronbach's α of video version of K-BHS was .723. Test-retest reliability was significant. Deaf persons showed significantly higher levels of hopeless and depression than hearing persons. Additionally, results showed that correlations between K-BHS and K-BDI-II of original version in hearing persons were higher than correlations between K-BHS and K-BDI-II of video version in deaf persons. In summary, this study developed K-BHS in sign language version(K-BHS-KSL) for deaf persons, tested reliability and validity and identified levels of hopeless and depression of deaf persons.

P.14 A study of Emotional Characteristics for Korean Deaf persons: Focused on the Korean Sign Language Versions of the Korean Beck Depression inventory-II (K-BDI-II), Beck Anxiety Inventory(K-BAI), and Hopelessness Scale(K-BHS)
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Depression and anxiety are symptoms that people experience commonly. Also hopelessness is reported to be an important psychological variable predicting suicide. Especially, deaf persons are likely to be vulnerable emotionally because impaired auditory ability causes difficulty of psychological adaptation. In Korea there are limitations that deaf persons are evaluated using the text version of psychological scales for hearing persons. Previous studies point out deaf persons have difficulty understanding text. Therefore, deaf persons have difficulties in receiving psychological support. This study developed K-BDI-II, K-BAI and K-BHS for deaf persons and examined level of depression, anxiety and hopeless of deaf persons. 237 deaf persons using Korean sign language(KSL) conducted sign language version of psychological examinations. To compare emotional levels between deaf persons and hearing persons, 5 hearing persons conducted original version of psychological scales and 42 bilingual in Korean and sign language conducted sign language version and original version of psychological examinations. Results showed

positive correlations between sign language version of K-BDI-II, K-BAI and K-BHS. Deaf persons reported significantly higher levels of depression, anxiety and hopelessness than hearing persons. Also deaf persons showed higher levels of depression, anxiety and hopelessness than those bilingual in sign language versions. Regarding scores of original versions and scores of sign language versions in bilingual, difference was reported only in K-BDI-II. This result suggests that although sign language version of K-BDI-II was made to reflect meaning of original version, deaf persons are likely to report more high depression in sign language version than original version. Comparing original versions between bilingual and hearing persons, a difference was showed only in K-BHS which suggests that bilingual feel life positively. The implication of this study is that examination of depression, anxiety and hopelessness of deaf persons should use sign language version of psychological scales and emotional characteristics .

P.15 Outcome of depressive and anxiety disorders among young adults in Finland

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Background: Depressive and anxiety disorders often have a chronic or fluctuating course and may have a long-lasting effect on the lives of affected persons. The aims of this study are to describe outcome of depressive and anxiety disorders among those affected by young adulthood, and to identify possible predictors of persistence of these disorders and quality of life.

Methods: A nationally representative sample of 1894 Finns aged 19 to 34 years in 2 was sent a questionnaire containing several mental health screens. All screen positives and a random sample of screen negatives were invited to participate in a mental health assessment including a SCID interview and case record evaluation from mental health treatments for the final diagnostic assessment. The Ethics Committee of the Hospital District of Helsinki and Uusimaa approved the study. We investigated those participants who had a depressive or anxiety disorder (excluded those whose only disorder was a single specific phobia) (N=181), and a control group included those who did not receive any DSM-IV-diagnosis (N=29). They were followed up in 211. The outcome measures are diagnostic status and self-estimated quality of life in 211. Possible predictors are sociodemographic factors, treatment and scales assessing mental health.

Results: In our study group, 23% had a diagnosis of depressive or anxiety disorders in 211, while the portion was 1% in a control group. Education was lower and self-estimated quality of life worse in the study group, and those with a diagnosis still in 211 had poorer quality of life than those who were in remission. None of the chosen factors predicted the diagnostic status in 211, but a higher score in Mood Disorder Questionnaire predicted poorer quality of life.

Conclusions: Depressive and anxiety disorders are persistent and affect significantly quality of life of affected persons. Among young adults with these disorders, special attention

should be paid and support provided for achieving academic goals. The authors declare no conflicts of interest.

P.16 Stigmatization of mental illness

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Background/Aims: People's attitudes about some kind of mental illness cause difficulties not only the patients but their families. The fact of the "diagnosis" quite often seems to be a stigma that leads to rejection and social isolation. But perceived stigma means also a barrier to recovery. Therefore, information mediated by the internet and media has special role in shaping public opinion. The aim was to explore the effect of the news, which are available for people using these tools.

Methods: In the study an implicit method (SST) was applied to explore young adults' attitudes towards some well-known diseases (depression, bipolar disorder, schizophrenia and post-traumatic stress syndrome). The subjects were divided into two groups: one of them got an artificial created newspaper article before the test that was about an aggressive and troublemaker patient with some kind of mental disorder, while the members of the control group got a neutral article to the theme (weather forecast).

Results: More negative attitudes towards patients with some kind of mental disorder were explored in the examination group than in the control one.

Conclusion: The role of internet and media has been confirmed.

P.17 Differences between adolescent and adult suicide attempts in emergency department

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Objective: This aim of the present study was to determine the demographic and clinical characteristics of suicide attempts in adolescents compared with those of adults.

Methods: The subjects were suicide attempters visited in emergency department at a university hospital. We prospectively collected data on socio-demographic variables, clinical and suicide-related characteristics. Comparisons were made on variables between adolescents (less than 18 year, n=113) and adult suicide attempters (n=1274).

Results: Suicide attempters in adolescents were more often women than in adults (79.6% vs. 56.3%, $p < .1$). Adolescents used more non-lethal methods such as poisoning with over the counter drugs and wrist cutting, while adults used more lethal methods such as poisoning with pesticides or carbon monoxide ($p < .1$). However, jumping from a high place was more frequently used in adolescents (5% vs. 1.2%, $p < .1$). With regard to motivation of suicide attempt, adolescents had more interpersonal problems ($p < .1$), less financial and physical problems ($p < .1$ and $p = .1$). In adolescents, intention was less serious (9.7% vs. 25.2%, $p = .3$) and help seeking behavior following suicide attempts was more common compared with adults (32.7% vs. 18.4%, $p = .4$).

Conclusion: Our findings suggest that suicide attempts in adolescents may be impulsive and help seeking behavior resulted from maladaptive or premature coping strategies in managing interpersonal problems. Programs for managing interpersonal problems might be effective for prevention of suicide attempts in adolescents.

P.18 Factors affecting suicidal ideation in Korean adolescents

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Objective: The purpose of this study was to evaluate the occurrence of the suicidal ideation and associated factors with self-reported suicidal ideation within the last 12 months among Korean adolescents.

Methods: A total of 1533 adolescents were recruited from middle schools (age range: 13-14 years) in Korea. According to existence of suicidal ideation, they were divided into 2 groups - suicidal ideation group and non-suicidal ideation group, and the differences between groups measured in terms of various characteristics, including depression (Kovacs' Children's Depression Inventory), school and family factors, and health related conditions.

Results: A total of 51 (32.7%) middle school students reported suicidal ideation, and the rate of suicidal attempt was 6.9% (n=16). The associated factors of suicidal ideation were female (OR= 2.42, $p < .1$), below average academic achievement (OR=1.43, $p = .7$), perceived low parental support (OR=2.9, $p = .1$), depression (OR=3.25, $p < .1$), current alcohol use (OR=2.37, $p = .3$), self reported poor health (OR=1.54, $p = .43$), and school bullying (OR=1.91, $p = .5$).

Conclusions: These results may have important implications for the strategies and specified intervention in preventing suicidal ideation in Korean adolescents.

P.19 Reducing Patient Dependence on Benzodiazepines during Outpatient Treatment of Anxiety Disorders

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Background/Aims: Anxiety disorders are the most prevalent mental illnesses in the United States. Benzodiazepines have been widely prescribed for anxiety disorders. Despite their popularity and efficacy, long-term use of benzodiazepines has been associated with adverse effects such as cognitive impairment. A quality improvement project was undertaken to help reduce patient dependence on benzodiazepines and improve the treatment of anxiety disorders at a community mental health clinic in southwestern United States.

Methods: A convenience sample of 2 existing and 1 new patients with anxiety disorders ($n = 3$) received education, benzodiazepine dose-tapering, non-benzodiazepine anxiolytics, and Cognitive Behavioral Therapy over a period of 12 weeks. The Hamilton Anxiety Rating Scale (HAM-A) was administered pre- and post-intervention to determine anxiety levels. Paired-samples t-tests were conducted to compare the means of the initial and final benzodiazepine doses and HAM-A scores.

Results: The mean of the initial daily doses was 1.7 ($sd = 1.46$), and the mean of the final daily doses was .96 ($sd = .92$). A significant decrease from the initial to the final daily doses was found ($t(29) = 6.53, p < .1$). Similarly, the mean of the initial HAM-A scores was 3.3 ($sd = 5.83$), and the mean of the final HAM-A scores was 21.6 ($sd = 8.79$), resulting in a significant decrease ($t(29) = 5.934, p < .1$). These results indicate that the interventions have been effective.

Conclusions: When patient education, benzodiazepine dose reduction, prescribing of non-benzodiazepine anxiolytics, and CBT are done therapeutically, anxiety can be alleviated while dependence on benzodiazepines is reduced. An evidence-based protocol was developed that will be useful in guiding the outpatient treatment of anxiety disorders at the host clinic and in similar settings.

P.20 Depressive Symptom Profiles Indicating the Positive for Depression in Patients with Chronic Physical Diseases

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Background: In this study, we aimed to identify the depressive symptom profiles that would give a positive indication of the presence of depression and present the optimal cut-off value of sub-scores on the depressive symptom profiles to detect depression in elderly subjects with chronic physical diseases consisting of diabetes, chronic obstructive pulmonary disease/asthma, and coronary heart disease, using the Patient Health Questionnaire-9 (PHQ-9).

Methods: Two hundred and thirty-one patients with chronic physical diseases were recruited from a university-affiliated general hospital in South Korea. The positive for depression was detected based on a ≥ 8 score on the Hamilton Depression Rating Scale (HAM-D). Using analysis of covariance (ANCOVA) for continuous variables and binary logistic regression analysis for discrete variables, with adjusting the potential effects of confounding variables, depressive symptom profiles were compared between those with and without depression.

Results: Positive for depression was estimated in 18.2% cases ($n = 42$). Greater severities of all 9 depressive symptoms in the PHQ-9 were presented in those with depression rather than those without depression. A binary logistic regression modeling presented that little interest (adjusted odds ratio [aOR] = 4.648, $P < .1$), reduced/increased sleep (aOR = 3.269, $P < .1$), psychomotor retardation/agitation (aOR = 2.243, $P = .4$), and concentration problem (aOR = 16.116, $P < .1$) were independently associated with increased likelihood of the positive for depression. ROC curve analysis presented that the optimal cut-off value of score on the items for little interest, reduced/increased sleep, psychomotor retardation/agitation and concentration problem (PHQ-9) for detecting the positive for depression was 4 with 61.9% of sensitivity and 91.5% of specificity (area under curve [AUC] = .937, $P < .1$).

Conclusion: Our findings suggested that the diagnostic weighting of little interest, reduced/increased sleep, psychomotor retardation/agitation, and concentration problem is needed to detect depression among the elderly patients with chronic physical diseases.

P.21 The relationship between total sleep time and suicidal ideation among elderly in Korea

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Objective: Suicide is one of the leading causes of death globally and suicide in elderly is a major health issue especially in Korean society for its rapidly ageing characteristics. Increasing evidences suggests that sleep disturbances in depression may be specifically linked to suicidal behaviors. Previous estimates are, however, limited among general population. The present study investigated the relationship between total sleep time and suicidal ideation among elderly.

Methods: Data were drawn from the fourth to the sixth Korean National Health and Nutrition Examination Survey (27–213, $N=58,423$). This secondary analysis was restricted to individuals aged 65 years and over. We used multivariable logistic regression to examine suicidal ideation during past 1 year by total sleep time, controlling for relevant sociodemographic characteristics.

Results: A total of 9,39 subjects were included in the analyses. Overall, 22.5% of the sample reported a suicidal ideation during past 1 year and self-reported average total sleep time was 6.5 hours. Regression analyses revealed that decreased total sleep time is associated with suicidal ideation after controlling for depression diagnosis, household income,

education, sex and age (odds ratio [OR] = .961, 95% CI .934-.988, $p = .5$).

Conclusion: These findings suggest an independent association between total sleep time and suicidal ideation among elderly. Focusing on decreased total sleep time can help identify elderly people at high risk for death by suicide, improve suicide prevention and intervention efforts.

P.22 The protective effects of hypomanic symptoms in a major depressive episode on suicide attempt in bipolar disorder

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Background/Aims: Patients with bipolar disorder in a combined mixed state have a 38~65 times higher suicidal risk than those in euthymic states. The aim of this study is to find whether the intra-MDE hypomanic symptoms of the bipolar patients influence the risk of suicidal attempts, and which hypomanic symptoms contribute to either increase or decrease the risk of suicide attempts.

Methods: 5 patients with BD I and 51 patients with BD II were recruited. Clinical interviews were done by psychiatrists using a semi-structured interview form including DSM-IV diagnosis, demographics and illness variables. The severity of depressive symptoms was evaluated by using Hamilton Depressive Rating Scale. The identification of intra-MDE hypomanic symptoms was carried out during the initial interview.

Results: Of the total 11 patients, 43 (42.6%) had a history of suicide attempts (SA). The Global Assessment Function score of the group with a history of suicidal attempt during their recent episodes was lower than the other group by more than 1% ($\chi^2 = 2.5$, $p = .43$). By using factor analysis of hypomanic symptoms, two factors were yielded: Factor 1 (Darker component of hypomania) consists of irritability, distractibility, impulsivity, talkativeness and a decreased need for sleep. Factor 2 (Sunny component of hypomania) consists of an elevated mood, an inflated self-esteem and hyperactivity. Smoking rate of SA group was nearly five times higher than that of non-SA group ($\exp(\beta) = 4.75$, $p = .8$). Psychiatric comorbidity in the SA group was more than three times as high as that of the non-SA group ($\exp(\beta) = 2.77$, $p = .33$). The sunny component of intra-MDE hypomanic symptoms was shown high in non-SA group ($\exp(\beta) = .5$, $p = .16$).

Conclusions: Our findings suggest that bipolar patients with a history of suicide attempts have a distinct clinical profile and each component of (hypo)manic symptoms may have a different role in suicide behaviors. Attention should be paid to those risk and protective factors.

P.23 The epidemiologic survey of depression and suicidality among North Korean defectors in South Korea

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Objective: With the ever-increasing number of North Korean Defectors (NKDs) entering South Korea, helping their successful adaptation to South Korean society has become a major social issue in South Korea. This study was performed to assess the prevalence of depression and suicidality among NKDs in South Korea.

Methods: The study subjects, NKDs, were 3 adults (male: 65; female: 235; average age: 38.8±11.9 yrs.) registered within two years in Hana Center, the North Korean Defectors' Resettlement Centers. The North Korean version of the WHO-Composite International Diagnostic Interview (NK-CIDI) was used as an assessment tool based on the DSM-IV criteria.

Results: The prevalence of major depressive disorder was 17.7% in NKDs and 6.7% in the South Korean general population, respectively. The prevalence of dysthymia was 2.3% in NKDs and .7% in South Korean. The prevalence of suicidality in NKDs was significantly higher than among the general population in South Korea: suicidal idea (28.3%), suicide attempt (17.3%).

Conclusion: NKDs showed higher prevalence of depression and suicidality than South Korean general population. To the best of our knowledge, this is the first study to explore the prevalence of depression and suicidality among NKDs in South Korea using the NK-CIDI.

diagnosis	21	26	211 (64 years old or younger)	relative to 26 variati on (%)	211 (total)
	prevalence (S.E.) ^b (%)	prevalence (S.E.) (%)	prevalence (S.E.) (%)		prevalence (S.E) (%)
Alcohol use disorder	15.9 (.5)	16.2 (1.2)	14. (1.)	-13.6%	13.4 (.9)
Alcohol dependence	8.1 (.4)	7. (.9)	5.6 (.6)	-2.0%	5.3 (.6)
Alcohol abuse	7.8 (.4)	9.2 (.5)	8.5 (.8)	-7.6%	8. (.7)
Nicotine use disorder	1.3 (.4)	9. (.7)	7.3 (.7)	-18.9%	7.2 (.7)
Nicotine dependence	9.4 (.4)	7.7 (.7)	5.5 (.6)	-28.6%	5.5 (.6)
Nicotine withdrawal	2.4 (.2)	2.9 (.3)	3.1 (.5)	▲6.9%	3.1 (.4)
Psychotic disorder	1.1 (.1)	.5 (.1)	.6 (.2)	▲2.0%	.6 (.2)
Schizophreniform disorder	.2 (.1)	.1 (.1)	.2 (.1)	1%	.2 (.1)
Brief psychotic disorder	.8 (.1)	.3 (.1)	.4 (.2)	▲33.3%	.4 (.2)
Mental disorder	4.6 (.3)	6.2 (.6)	7.5 (.7)	▲21.0%	7.5 (.7)
Major depressive disorder	4. (.3)	5.6 (.5)	6.7 (.7)	▲19.6%	6.7 (.6)
Dysthymia	.5 (.1)	.5 (.1)	.7 (.2)	▲4.0%	.8 (.2)
Bipolar disorder	.2 (.1)	.3 (.1)	.2 (.1)	-33.3%	.2 (.1)

P.24 Use of a smartphone application to screen for depression and suicide in Korean general population

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Objective : This study aims to investigate the voluntary access, use, and characteristics of the smartphone applications for depression and suicide screening in the Korean general population.

Materials and Methods : This is a cross-sectional study using a free depression and suicide screening smartphone application, which contains the demographics of the population, the data from the Center for Epidemiological Studies-Depression (CES-D) and a Suicide Behaviors Questionnaire- Revised (SBQ-R). The free application was downloaded worldwide from Apple's App Store and Android Market, and the participants who downloaded the application were subjectively measured during 1 month.

Results : The subjects totaled 28,683 men and women. 72.6% of the subjects were females, and 81.4% of the subjects were aged between 1 and 29 years. In total, 25.7% of the participants were recorded above score of cut-off point of CES-D, and there were differences among the groups based on sex ($p < .1$), age ($p < .1$), and psychiatric history ($p < .1$). The characteristics associated with suicide were as follows : depression (OR 8.9, 95% CI 8.7-9.1), female (OR 1.3, 95% CI: 1.3-1.4), 3-49 age group (OR 2.5, 95% CI : 2.2-2.7), 5 or older age group (OR 1.4, 95% CI 1.3-1.6), and Psychiatry history (OR 1.9, 95% CI 1.8-2.).

Conclusion : The smartphone application may be a useful tool for screening depression and suicide in Korean general population. the application can potentially play an important role in depression and suicide screening, information about therapeutic intervention, and health education.

P.25 The effects of an online imagery-based treatment program in patient with workplace-related posttraumatic stress disorder

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Objective: Although psychological problems such as posttraumatic stress disorder (PTSD) are the most distressing symptoms for individuals with workplace injury, a number of patients have difficulties in being involved in psychiatric management. Because the physical disability from workplace injuries is one of the reasons for much of inaccessibility, an easily accessible treatment program is needed especially for patients with PTSD related to workplace accidents.

Methods: We developed an online treatment program that consists of eight 15-minute sessions using script-guided imagery and supportive music. The effects of this program were examined using self-reported psychological questionnaires. During four weeks, 35 patients with workplace-related PTSD participated in the take-home online treatment for four days a week.

Results: Patients showed significant improvement in depressed mood ($t = 3.642, p = .1$) on the Patient Health Questionnaire, anxiety ($t = 3.198, p = .3$) on the Generalized Anxiety Disorder 7-item scale, and PTSD symptoms ($t = 5.363, p = < .1$) on the Post-Traumatic Stress Disorder Check List after four weeks of treatment program. Especially, patients with

adverse childhood experience revealed greater relief of anxiety and PTSD symptoms than those without adverse childhood experience.

Conclusion: These results demonstrate that the relatively short duration of online imagery-based treatment program has beneficial effects in workplace-related PTSD. The main effect of this program is thought to be the impact of mental imagery on emotion regulation. Further studies for its long-term effects and neuroscientific underpinnings will be needed.

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P.26 Study 329 suggests paroxetine to exert an antidepressant effect in children and adolescents

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Introduction: In a recent paper in BMJ, Le Noury and co-workers (BMJ 215;351:h432) reanalysed the results of a previously published clinical trial (Study 329) (Keller et al, J Am Acad Child Adolesc Psychiatry 21;4:7;762-772) addressing the tolerability and efficacy of paroxetine in adolescent depression. Noting that paroxetine did not outperform placebo with respect to the primary effect variable, the total score of the Hamilton depression rating scale (HDRS 17-sum), they concluded that paroxetine did not show efficacy. In order to shed further light on this issue, we have undertaken additional analyses of the data from Study 329.

Method: Effect sizes and p-values for the difference between paroxetine and placebo were assessed using linear mixed models for each individual HDRS17 item *i*) in all subjects, *ii*) after excluding subjects reporting <1 on the item in question at baseline and *iii*) after also excluding those below age 13.

Results: As reported in the original report by Keller and co-workers, paroxetine outperformed placebo with respect to reduction in *depressed mood*, the effect size being relatively large (.62). After exclusion of subjects displaying baseline rating <1 for the item in question, paroxetine outperformed placebo also with respect to the item *guilt*. After exclusion also of subjects <13 years of age, significant reductions in *depressed mood*, *guilt*, *psychomotor retardation* and *psychic anxiety* as well as in HDRS17-sum were revealed.

Conclusion: We have recently reported that SSRIs often outperform placebo in reducing important items in the HDRS17 even when no significant difference is found with respect to HDRS17-sum (Hieronymus et al, Mol Psychiatry 216;21;523-53). This re-analysis of trial 329 yielded very similar results, suggesting HDRS17-sum being a suboptimal measure for detecting an antidepressant signal also in the young. Moreover, leaving the formal aspect that HDRS17-sum was named primary effect parameter in Study 329 aside, the results do not support the conclusion by Le Noury and co-workers that paroxetine lacks efficacy in adolescent depression.

P.27 The changes of prescribing patterns for inpatients with major depressive disorder

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Objectives : DSM-5 changed the diagnostic classification and concept of major depressive disorder. It would influence the prescribing patterns in clinical area. In this study, we tried to find out prescribing patterns of antidepressants, mood stabilizers, and antipsychotics for patients with major depressive disorder in 25, 21 and 215.

Methods : Subjects were selected from psychiatric inpatients with major depressive disorder at Chung-Ang university hospital. In each patient, prescriptions at discharge – ‘ What kind of antidepressants, mood stabilizers, and antipsychotics were used in 25, 21, and 215 ’ were collected and analysed. Especially, prescription patterns in patients with anxious distress and mixed features on DSM-5 criteria were compared.

Results : In patients with anxious distress specifier, prescription rate of antidepressants has increased (25: 7%, 21: 88.%, 215: 91.2%). In patients with mixed feature, prescription rate of antidepressants was low in 215. In patients with anxious distress specifier, rate of mood stabilizer prescription had no statistical significance. In patients with mixed features, prescription rate of mood stabilizers was 77.5% in 25, 5.4% in 21 and 62.4% in 215. In patients with anxious distress specifier, prescription rate of them was 73.3% in 25, 5.4% in 21 and 58.4% in 215. Prescribing rate of antipsychotics in major depressive disorder with anxious distress, decreased in 21 and considerably increased in 215. However, there was no statistical significance. In patients with mixed features, prescribing rate of antipsychotics was 92.9% in 25, 45.4% in 21, and 87.8% in 215.

Conclusion : The considerable number of patients with major depressive disorder was not prescribed antidepressants before 1 years ago. It suggests clinicians already considered the concept of mixed feature before the presence of DMS-5. There was difference in prescribing pattern of antipsychotics and mood stabilizers between MDD patients with mixed features and MDD patients with anxious distress. It supports the validity of DSM-5, which separated mixed features from anxious distress.

P.28 Synergism between mGluR5 and COX-2 in antidepressant-like action is associated with the alterations in NMDA receptors

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Background: There is evidence for the association between inflammatory processes and depressive disorders [1]. It is also known that glutamate may influence neuro-inflammation [2]. Accordingly, the weakening of glutamate transmission and/or inflammation seems to be promising strategies to explore new antidepressant therapy. The purpose of this study was to examine the role of NMDA receptors in antidepressant-like action of MTEP(mGluR5 antagonist) and NS-398(COX-2 inhibitor), administered jointly.

Methods: NS-398(1mg/kg) and MTEP(3mg/kg) were administered(*i.p.*) to C57Bl/6J mice alone or in combination for 7 days. 6min after last injection, the tail suspension test(TST) was performed. Afterwards, hippocampus (HP) and prefrontal cortex (PFC) were collected. The GluN2A and

GluN2B protein, and appropriate mRNA levels were determined by Western blot and Real-TimePCR, respectively.

Results: Administration of MTEP caused statistically significant increase in GluN2A protein level(by 32%) and decrease in GluN2B protein level(by 3%) in the PFC compared to vehicle group. However, significant increase in GluN2B protein level(by 4%) and no changes in GluN2A protein level after repeated NS-398 injection were observed in PFC. In HP separate administration of both compounds did not affect the level of the investigated proteins. These results were correlated with changes in the Grin2A and Grin2b gene expression. In turn, co-treatment with MTEP and NS-398 much more decreased(by 29%) immobility time in TST, than compounds administered separately(by 8 and 7%, respectively). These observations were negatively correlated with GluN2A protein level and positively correlated with GluN2B protein level in the both PFC and HP.

Conclusions: Our results suggest the antidepressant-like activity of MTEP and NS-398, co-administered in sub-effective doses. Biochemical analysis indicate that observed effect is related with the cumulative impact of these compounds on the NMDAR, manifested by an increase in GluN2A and decrease in GluN2B subunit level.

Acknowledgements:

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P.29 A retrospective population based study into self-harm rates within NHS Greater Glasgow and Clyde during the 214 Commonwealth Games and Scottish Independence Referendum

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Background: Information is collected annually on each self-harm presentation to the NHS GG&C Liaison Psychiatry Service (GLPS). Previous research undertaken by the department's team demonstrated an increase in rates of self-harm possibly related to financial stresses around the time of the UK economic recession.

Aim: Two significant social events took place in Glasgow in 214; the Commonwealth Games and the Scottish Independence Referendum. Self-harm rates were retrospectively studied over these periods to identify possible fluctuations.

Method: Data on self-harm presentations was collected. This included patient postcodes, dates and times of presentations. Presentations to the GLPS covering the 2-week period of the Commonwealth Games (23rd July to 3rd August) and for the 6 weeks before and after these dates were collated for 214. For 29-213 the number of presentations over the same total 14-week period was collated. This same process was used for the week of the Independence referendum (15th – 21st September) and the 6 weeks before and after. This data was then analyzed.

Results: There were a total of 3418 episodes of self-harm over the Commonwealth period and 3227 episodes over the Independence Referendum period for the years 29 – 214. For week 1 of the 214 Games there was a 14% reduction in presentations and a 16% reduction in week 2, compared to the average of previous years. For the week of the independence referendum there was a 6% increase. For all presentations, there was a 23% fall over the 14 week Commonwealth period and a 21% fall over the 13 week Independence Referendum period compared to previous years.

Conclusions: There were clear reductions in the number of presentations over these two periods compared to previous years. These fluctuations could be accounted for by numerous factors which makes concluding a direct link impossible, though it suggests that more research should be undertaken into the reason for reductions in rates of self-harm to better aid prevention and intervention.

P.30 Course of depression in patients with different baseline levels of functioning and influence of adherence

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Aims: This study examined the relationship between baseline functioning, treatment adherence and the course of depression.

Methods: Data in this *post hoc* analysis were taken from a 6-month prospective, non-interventional, observational study that involved 1,549 MDD patients without sexual dysfunction at baseline in twelve countries worldwide. Depression severity was measured using the Clinical Global Impression (CGI) and the 16-item Quick Inventory of Depressive Symptomatology Self-Report (QIDS-SR₁₆). Functioning was assessed adding the three Sheehan Disability Scale (SDS) areas (work, social, family). Patient baseline functioning was classified as normal, low, and very low (SDS total score -1, 11-2, 21-3, respectively). Quality of life (QoL) was measured using the EQ-5D instrument. Adherence with medication was measured from the first follow-up visit using a single question. Recovery was defined as having clinical remission (QIDS-SR₁₆ total score ≤5) and functional remission (<3 in the three Sheehan Disability Scale subscales and no days of reduced productivity).

Results: At baseline, 16% of the patients had normal functioning, 47% had low functioning and 37% had very low functioning. Patients with worse functioning had higher depression severity, when assessed with both, the CGI and the QIDS-SR₁₆, and worse QoL at baseline. Differences in depression severity and quality of life among the three functioning groups tended to decrease over time, with few statistical significant differences remaining at 24 weeks. However, the recovery of patients in the very low functioning group was lower than in the other two groups (62%, 66% and 55% for the normal, low and very low groups respectively; $p < .1$). The regression model showed that the odds of recovery was lower in the very low functioning group, compared to the normal functioning group (OR = .44, $p < .1$). In addition, less adherent patients had lower odds of recovery, compared to more adherent patients (OR=.5, $p < .1$).

Conclusions: Patients with worse functioning at baseline had a lower recovery rate. Lower treatment adherence was associated to worse clinical outcomes.

P.31 Mitochondrial respiration in bipolar affective disorder

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Bipolar affective disorder (BAD) is a serious mental disorder. The predisposition to BAD is determined by genetic, other biological and psychosocial factors. Changes in the activities of compounds of intracellular signaling pathways are studied with the aim of discovering new biological markers of mood disorders or predictors of response to pharmacotherapy, which can be easily examined in blood samples.

The aim : of our study is to find out association between changes in energy metabolism and different episodes of BAD. Selected mitochondrial parameters were measured in peripheral blood components. The analyses were examined in patients suffering from BAD in different states of BAD and in healthy controls. Clinical evaluation of the BAD patients was provided by experienced clinicians using following questionnaires: MDQ, MADRS, YMRS, CGI-S and BPRS. Mitochondrial respiration was examined in intact and permeabilized blood platelets using high resolution respirometry. It was evaluated by both respiratory rate and respiratory control ratios. Enzyme activities (citrate synthase, electron transport chain complexes - complex I, II+III, IV) were measured spectrophotometrically. Statistical analyses were performed using the STATISTICA data analysis software system, version 12. Activities of individual complexes were normalized to citrate synthase activity. Statistical significance was evaluated using the ANOVA and post-doc Scheffé test.

Our preliminary results showed increased physiological respiration in intact platelets from manic patients. Complex-I linked respiration was found increased in manic patients and in remission compared to healthy controls. Citrate synthase activity was not changed in BAD patients compared to controls. Decreased complex IV activity was observed in BAD depressive patients in comparison to controls.

Our results support the hypothesis that changes in the rate of oxygen consumption and electron transport chain complexes activities may participate in pathophysiology of BAD.

In conclusion: better insight into molecular mechanisms of cellular respiration could lead to better understanding of pathophysiology of BAD. Mitochondrial dysfunctions in different episodes of BAD should be further studied.

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P.32 Factors related to suicidal behavior in patients with bipolar disorder: the effect of mixed features on suicidality

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Background: The aim of the present study was to investigate various risk factors of suicidal behaviors, including mixed feature specifier, in Korean patients with bipolar disorder.

Methods: We retrospectively reviewed medical charts from 25 to 214. A total of 334 patients diagnosed with bipolar disorder using DSM-IV TR were enrolled. The subjects were categorized into two groups according to history of suicidal behaviors and compared regarding demographic and clinical characteristics including mixed feature specifier. We re-evaluated the index episode using the DSM-5 criteria and classified into index

episode with and without mixed feature. Logistic regression was performed to evaluate significant risk factors associated with suicidal behavior.

Results: Suicidal behavior had independent relationship with mixed feature at index episode using DSM-5 criteria and number of previous depressive episodes in Korean bipolar patients. The mixed feature specifier was the strongest risk factor in the present study.

Limitations: This study was used with a retrospective design and structured psychiatric interview was not conducted.

Conclusions: Suicidal behavior had independent relationship with mixed feature at index episode using DSM-5 criteria and number of previous depressive episodes in Korean bipolar patients. The mixed feature specifier was the strongest risk factor in the present study.

P.33 Effects of switching to aripiprazole from current atypical antipsychotics on subsyndromal symptoms and tolerability in patients with bipolar disorder

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We evaluated the effectiveness of aripiprazole among bipolar patients who had switched to this medication as a result of difficulty maintaining on their prestudy atypical antipsychotics (AAPs) because of subsyndromal mood symptoms or intolerance. This study included 77 bipolar patients who were in syndromal remission with an AAP as monotherapy or with an AAP combined with a mood stabilizer(s) who needed to switch from their present AAP because of subsyndromal symptoms or intolerance. At 24 weeks after switching to aripiprazole, the remission rates on the Montgomery-Åsberg Depression Rating Scale (MADRS) and on both the MADRS and the Young Mania Rating Scale were increased significantly in the full sample and in the inefficacy subgroup. In the inefficacy subgroup, the MADRS score change was significant during the 24 weeks of study. Total cholesterol and prolactin decreased significantly after switching to aripiprazole. The proportion of patients who had abnormal values for central obesity and hypercholesterolemia decreased significantly from baseline to week 24. These findings suggest that a change from the current AAP to aripiprazole was associated with improvement in subsyndromal mood symptoms and several lipid/metabolic or safety profile parameters in patients with bipolar disorder with tolerability concerns or subsyndromal mood symptoms.

P.34 Korean Medication Algorithm for Depressive Disorder 217(I): Major Depressive Disorder without Psychotic Features Jeong Seok Seo¹; Young Sup Woo²; Inki Sohn³; Duk-In Jon⁴; Kyung Joon Min⁵; Won-Myoung Bahk²

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Objectives: As a result of newer agents being introduced pharmacological treatment strategy is also changing. To overcome the problematic nature of this trend, the Korean Medication Algorithm Project for Depressive Disorder (KMAP-DD) was developed in 22 and revised in 26 and 212. This third

revision of KMAP-DD reflected the new research results and the latest trends of pharmacological treatment.

Methods: A 44-item questionnaire was used to obtain the consensus of experts regarding pharmacological treatment strategies for depressive disorder. The review committee included 144 psychiatrists with wide vast clinical experience in depressive disorder. Of the committee members, 79 psychiatrists responded to the survey. Each treatment strategy or treatment option is evaluated with nine points and mean scores of each treatment option were divided into three phases of recommendation; primary, secondary, and tertiary. **Results:** The first-line pharmacotherapeutic strategy for mild to moderate major depressive disorder without psychotic features is antidepressant monotherapy with escitalopram or sertraline. For severe episode without psychotic features, antidepressant monotherapy (escitalopram, venlafaxine or mirtazapine) or combination with an antidepressant and an atypical antipsychotic (aripiprazole or quetiapine) were the first-line strategy. When compared to the results from KMAP-DD 212, the preference for antidepressant and atypical antipsychotics combination in severe episodes was increased and it moved from the secondary to the primary treatment strategy. In case of not responding to initial treatment, switching to or combination with another class of antidepressants or combination with an atypical antipsychotic were recommended. In case of partially responding to initial treatment, adding an another antidepressant or combination of an atypical antipsychotic were preferred.

Conclusions: For non-psychotic depression, SSRIs, SNRIs and mirtazapine monotherapy or in combination with an atypical antipsychotics are initially considered. There are trends when the initial treatment fails, combination with an antidepressant and an atypical antipsychotic reached the same level of recommendation with antidepressant monotherapy.

P.35 The validity and clinical utility of bipolar questionnaires for screening bipolar disorder with alcohol use disorder : a preliminary study

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Objectives: The objective of this study is to evaluate the validity of the Korean version of Mood Disorder Questionnaire (K-MDQ), the Korean version of Hypomania Checklist-32 (K-HCL-32) and the Korean version of Bipolar spectrum diagnostic scale(K-BSDS) as screening tools for bipolar disorder(BD) in patients with alcohol use disorder.

Methods: 161 admitted patients with alcohol use disorder completed the K-MDQ, K-HCL-32, K-BSDS and all participants were assessed with the Structured Clinical Interview for DSM-IV to diagnose BD.

Results : Among 161 patients with alcohol use disorder, 21 patients (13.%) met criteria for a lifetime diagnosis of bipolar I disorder. In this study, we found that scores associated with increased energy and sexual activity are significantly high in comorbid group while scores associated with irritability/impulsivity are not. The K-HCL-32 showed higher sensitivity(.89) and specificity(.742) than K-MDQ or K-BSDS with cut-off score of 16.

Conclusions: These results indicate that among the three screening tools for bipolar disorder, K-HCL-32 is the most valid and useful tool in alcohol use disorder patients with cut-off score of 16. In addition, this study propose that questions about increased energy and sexual activity are key point for detecting BD in alcohol use disorder patients. Our study did not any conflict of interest.

P.36 The role of MeCP2 transcription factor in the pathophysiology and treatment of depression.

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Background: Depression is characterized by functional and transcriptional changes in several brain regions (including nucleus accumbens) implicated in regulating stress responses [1]. Methyl-CpG-Binding Protein 2 (MeCP2) is a highly abundant chromosomal protein within the brain, that has critical role in activity-dependent neuronal plasticity and transcription during brain development [2]. On the other hand, increasing evidence suggests that various posttranslational modifications (e.g. phosphorylation) regulate MeCP2's functions in depression-like behavior and the response to antidepressants [3].

Aims: The present study investigated the influence of both olfactory bulbectomy (OB) and chronic mild stress (CMS) animal model of depression, as well as chronic antidepressant treatment on the p-S421-MeCP2 protein level in the nucleus accumbens.

Methodology: Rats were subjected to OB or CMS procedure according to Pochwat et al. [4,5;respectively]. The following drugs: imipramine (1mg/kg; CMS), amitriptyline (1mg/kg; OB), escitalopram (1mg/kg; CMS), fluoxetine (1mg/kg; OB), venlafaxine (1mg/kg; OB, CMS) or olanzapine (2mg/kg; OB, CMS) were given (*i.p.*) for 14 (OB) or 35 (CMS) days. 24 h after the last dosage, rats were perfused transcardially with 4% paraphormaldehyde in .1M PBS. Protein levels was determined using immunofluorescence staining in paraffin-embedded brain sections.

Results: Both OB and CMS procedure induced statistically significant decrease (by 14.7% and 25.2%, respectively) in the p-S421-MeCP2 protein level. Treatment with imipramine, escitalopram and venlafaxine (but not olanzapine) reversed CMS-induced alterations. Interestingly, in OB rats, only fluoxetine and venlafaxine (but not amitriptyline and olanzapine) normalized p-S421-MeCP2 level.

Conclusions: Our results indicate that the MeCP2 may be important for the development of OB and CMS-induced depressive behavior. p-S421-MeCP2 protein seems to be essential for a therapeutic response to antidepressants (but not antipsychotics), however, observed effects can vary depending on factors inducing depression.

Acknowledgements:

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P.37 Behavioral consequences of chronic co-administration of mGluR5 antagonist (MTEP), and COX-2 inhibitor (NS398)

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Objectives: The role of metabotropic glutamate receptors (including mGluR5) in the pathophysiology of depression is well proven [1]. It is also known, that the synthesis of prostaglandins is necessary for the development of depressive-like and exploratory behaviour in mice [2]. On the other hand, glutamatergic transmission can regulate inflammatory processes [3]. Based on this, we hypothesized an existence of interaction between mGluRs and the cyclooxygenase-2 (COX-2), in mediating antidepressant-like effects in rodents.

Material and Methods: Male CD-1 and C57BL/6J mice were treated (*i.p.*) for 1, 7 or 14 days with MTEP (1mg/kg) and/or NS398 (3mg/kg). As reference drug imipramine (1mg/kg) was used. To evaluate antidepressant-like effect the Forced Swimming Test (FST), Rota-rod and Locomotor Activity (LA) was performed. All behavioral tests were carried out 6 min after last injection. The obtained data were presented as the mean ± SEM. Group differences were assessed using two-way ANOVA. $p < .5$ was considered as statistically significant.

Results: Chronic (but not acute) co-administration of MTEP and NS398 (7 and 14 days) induced statistically significant decrease in immobility time, when assessed by FST (18%, $P = .262$, and 22%, $P = .8$, respectively). Similar effect was also observed after repeated (7 and 14 days) co-administration of imipramine and NS398. 7 days of co-administration of imipramine and NS398 resulted 14% decrease of immobility in mice ($P = .65$). 2-way ANOVA showed not significant interaction of both compounds. Interestingly, in the modified Rota-rod Test, chronic co-administration of both compounds was without any effect. Contrary, NS398 (3mg/kg) and imipramine (1mg/kg) injected separately, showed reduction in the latency to fall after 5 and 6 days of administration, respectively [$F = (1,36) = 5.5$, $P = .39$; $F = (1,36) = 7.6$, $P = .91$ respectively].

Conclusions: Our findings shows, for the first time, interaction of mGlu receptors with the cyclooxygenase-2 in mediating antidepressant-like effects.

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P.38 The whole-body cryotherapy as an adjuvant treatment for people who are diagnosed with depressive disorder

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Background/Aims: The increasing prevalence of depression is cause for concern, and has spurred efforts to identify novel and valuable treatment. Heretofore, there is limited data about associations of the whole-body cryotherapy (WBCT) to mood disorders (Rymaszewska et al. 23; Rymaszewska et al. 28; Miller et al. 211) and the mechanisms of action are still unknown. Therefore, the objective of this study is to determine whether extreme low temperatures may beneficially influence on mood and biochemical factors of the people who are diagnosed with depression.

Methods: 2 people with depressive disorder (F.32, F.33; ICD-1) under standard psychopharmacology treatment agreed to participate in our research. Patients were treated with 1 sessions of WBCT from -11 to -16°C, 2-3 min each. Before the first session, after the last WBCT and two weeks later patients took part in psychological and psychiatric assessments. The blood for laboratory analysis (OB, hs-CRP, TAS) was collected before and at the end of cryotherapy. The Hamilton Depression Rating Scale (HAM-D), Beck Depression Inventory (BDI), The World Health Organization Quality of Life – BREF (WHOQOL – BREF) and self-report on “well-being” including: mood, level of motivation and sleep quality with Visual Analogue Scale (VAS) were included in the mental health assessment.

Results: The obtained results showed that the level of depressive symptoms significantly decreased after WBCT (HAM-D, BDI, both $p < .5$). The improved QoL was observed (WHOQOL-BREF, $p < .5$), as well as self-reported well-being (VAS, $p < .5$). The assessment of biological factors of inflammatory and antioxidant status showed no significant differences (OB, hs-CRP, TAS; $p > .5$).

Conclusions: WBCT may be considered as an additional treatment in depressive disorders. However, further studies are needed to determine extreme low temperatures’ potential mechanisms of action as present study showed significant improvement in psychopathological assessment and QoL among people with depression.

P.39 A clinical impression on Efficacy, Tolerability, and Safety of Duloxetine in Depression Patients, from the Application on 1 Patients

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Background: In recent years, the number of patients presenting as depression or depressive state and visiting a medical institution has increased by about 2.4 times compared from 1991 to 2018, and became the more common disease to be observed. According to one theory, education of those with mild depression has been improved, and more patients reached medical attention at an earlier stage and time. In such a situation, treatment of depression at earlier stages is required to enable patients return to society quickly. Duloxetine was launched in Japan in 2001. Duloxetine is a serotonin noradrenaline reuptake inhibitor and understood to be the top brand in market share of antidepressants around the world. We reviewed the charts and investigated the efficacy, tolerability, and the safety of duloxetine retrospectively.

Method: We have prescribed duloxetine to more than 6 depressive patients, and 1 of them who have taken it for 16 weeks were randomly selected. This may be the first investigation of the different effects of duloxetine-by severity using the CGI in Japan.

Result: Our analysis showed that duloxetine significantly decreased CGI from 2nd week, and there was significantly high improvement at each severity. It is known that getting significant high improvement in mild depression is difficult and the current result is therefore important. Moreover, duloxetine was effective in improving not only depressive mood and decreased activity, but also anxiety, physical pain, tiredness, sleep disturbance, loss of concentration, agitation, appetite abnormality. Adherence rate to treatment was 94% at 16 weeks, and there was no TEAE.

Conclusion: From this investigation, we can expect duloxetine's power to improve patient from mild to severe symptoms. In addition, we found 94% treatment persistence up to 16 weeks, and high tolerability. Therefore, we propose that duloxetine is a first choice for the treatment of MDD.

P.40 Effect of desvenlafaxine on inflammation in recent onset major depression

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The role of inflammation in depression has been the focus of research since the early 90s. A pro-inflammatory state has been widely documented¹. Antidepressants generally seem to have an anti-inflammatory effect, reducing pro-inflammatory factors²; however contradictory evidence suggests that this effect is not universal³. The effects of SNRIs on inflammatory factors has not been widely examined⁴. A recent large study of desvenlafaxine failed to show significant effect on inflammatory markers after 12 weeks of treatment⁴. On the other hand, venlafaxine seemed to exert an anti-inflammatory effect on TNF alpha at 8 weeks⁵. We present a 16-week study of desvenlafaxine in recent-onset major depressive disorder (n=2). CRP was measured at baseline, 8 weeks and 16 weeks. Subjects did not take antidepressants for at least 4 weeks prior to inclusion in the study. In subjects with elevated CRP at baseline, levels decreased at 8 weeks, and increased again at 16 weeks. The change between baseline and 16 weeks was statistically significant. These results suggest that the effect of antidepressants on CRP may not be stable over time and that this dimension must be taken into account in study design and the understanding of study results.

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P.41 Are inflammation and cognition related in major depression? Inadvertent selection for a cognitively unimpaired subgroup

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Deficits in cognition are frequent in major depression and may contribute to the decrements in functioning that are associated with depression¹. The pathophysiological status of this symptom dimension in depression remains unclear. It is possible that cognitive deficit may be a trait, or state related dimension, or even a 'scar' resulting from untreated or chronic depression³. A recent study suggested that remitted first episode patients performed worse than those with remitted recurrent depression⁴. While a meta-analysis showed cognitive deficits to be present as of the first episode⁵. However, another study showed better functioning in patients with a first episode of major depression⁶. During the course of two studies seeking to examine the relationship between cognitive function and inflammatory factors, we recruited subjects with a major depressive episode with onset occurring within the last 12 months. Further, inflammatory illnesses, unstable medical conditions, or any condition requiring the use of medication with anti-inflammatory effects were exclusionary criteria. We will present the cognitive profile of this sample, as well as response to unblinded treatment with antidepressants. The majority of the sample was free of cognitive deficits and response rates were unexpectedly high. We speculate that the selection criteria may have characterised a subpopulation of individuals with major depression who are as yet 'unscarred' by the pathological process.

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P.42 SNRI effects on cognitive functioning in recent onset major depression

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Deficits in cognitive functioning are frequent and heterogeneous in major depression and may contribute to the decrements in functioning that are associated with depression^{1,3}. In a recent review it is noted that studies of the effects of antidepressants on cognition in adults with major depression are limited². The factors which influence this effect remain unclear. In this study we present the effects of two SNRIs: desvenlafaxine (n=25) and duloxetine(n=13) on cognitive functioning in individuals with recent onset major depression (less than 1 year). Subjects were free of medication for 4 weeks prior to cognitive functioning evaluation and were treated with desvenlafaxine for 16 weeks or duloxetine for 12 weeks. Analyses were conducted simultaneously on both samples and then separately once a significant treatment effect was detected. Results indicate an improvement of cognitive functioning restricted to those with baseline deficits. These results indicate that characteristics of the population may influence final results and that caution is warranted when comparing the effects of antidepressants on cognitive functioning deficits observed in major depression.

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P.43 Accumbal DNA methylation landscapes of post-traumatic stress disorder susceptibility and resilient point to potential therapeutics

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Objectives: Post-traumatic stress disorder (PTSD) is a severe psychiatric disorder that may develop in survivors of a traumatic event. PTSD is mainly characterized by dysfunctional regulation of the central stress response. Additionally, recent data show changes in hedonia – the ability to experience pleasure or reward – in these patients. A dominant brain region associated with motivation and hedonia is the nucleus accumbens (NAc), which was found to be particularly linked to reduced reward responsivity in PTSD patients. Here we aimed to investigate the role of DNA methylation – a critical epigenetic mechanism that programs gene expression – in the NAc of PTSD animal model. **Methods:** In this study we used an established PTSD rat model, which mimics PTSD-like symptoms after exposure to trauma (predator scent) and its reminders. This model enables identification of trauma susceptibility and resilience. For the detection of DNA methylation we used a state-of-the-art

genome-wide targeted bisulfite sequencing of functional regions in the rat genome, which was followed by a site-specific differential DNA methylation computational analysis. *Results:* Based on the DNA methylation landscapes (n=16) of susceptibility and resilience in the NAc and their correlations with PTSD-like behavior, we treated susceptible rats with a combination of the ubiquitous endogenous methyl donor S-adenosyl methionine (SAM) and other compound (the formula is in patent application) that attenuated PTSD-like behavior. *Conclusions:* These data strongly support the involvement of epigenetic mechanisms in PTSD. In addition, the study suggests a therapeutic treatment, which is based on a combination of drugs that, in parallel, generates a resilience-like epigenetic landscape and target specific pathway that leads to attenuation of PTSD-like behavior. Taken together, we are suggesting a novel therapeutic approach that synergistically involves epigenetic reprogramming and direct alteration of gene-expression which may serve as a potential treatment for PTSD in human.

P.44 Changes over time of the diagnostic and therapeutic characteristics of patients of a psychiatric intensive care unit in Austria

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Objective: Psychiatric intensive care units (PICUs) are designed to monitor and treat patients at risk of self-harm and harm to others, or with critical somatic comorbidities [1]. The aim of the present study was to compare patients treated at the PICU of the General Hospital of Vienna (Austria) over the last 3 years regarding their diagnostic and therapeutic characteristics.

Methods: This is a chart review including 1 consecutive inpatients treated in the years 1985/86, sample no. 2 included further 1 consecutive inpatients treated in 1995/96. These two historical patient cohorts were compared with a more recent sample no. 3 of 1 consecutive inpatients treated in the years 27/8 [2].

Results: There were only minor changes in patients' diagnoses over time, probably reflecting changes in referral modes. Admission due to an accident was recorded in 9%, 3% and 4% for sample 1/2/3. The rate of suicide attempts preceding admission was 18%, 25% and 21%. The use of cranial computed tomography, magnetic resonance imaging and functional imaging progressively increased over time. There was a slight increase of the rate of involuntary stays and the use of physical restraints, which was most likely due to strict documentation. The rate of patients treated with ECT was 7%, 4% and 1%. We observed a shift from tricyclic antidepressants to SSRIs and SNRIs from sample 1 to 3. Likewise, we observed the emergence of atypical antipsychotics and a reduction of usage of typical neuroleptics mainly from sample 2 to 3. The percentage of patients receiving benzodiazepines increased over time from 64% to 7% and 84%, while the mean daily dosage of benzodiazepines decreased.

Conclusions: The changes over time in our 3 samples reflect the medical progress made during the last 3 years. Future studies should focus on evaluating measures of efficacy of psychiatric intensive care.

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P.45 Use of therapeutic sleep deprivation in psychiatric departments in Austria, Germany and Switzerland

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Objective: Therapeutic sleep deprivation (SD) is a non-pharmacological biological form of treatment that has successfully been used in psychiatry since the 1960s especially for depressive disorder [1,2]. The aim of the present study was to examine the pattern of use of SD in psychiatric departments in Austria, Germany and Switzerland.

Methods: A questionnaire was sent by mail to all 511 psychiatric departments in the three countries. Non-responders were asked to answer the questionnaire by phone and by email. We achieved a response rate of 75.3%.

Results: SD was generally recommended by 61.3% of all departments. 4% of all centres used total SD, 35.1% employed late partial SD and 18.4% recommended early partial SD (multiple answers possible). Despite this degree of recommendation, 61.3% of all psychiatric hospitals had not treated a single patient during the last 12 months. 18.7% had treated up to 1 patient, 9.9% between 11 and 3 patients, 8.3% had treated 31-1 patients and 1.9% more than 1 patients. 96% of the psychiatric hospitals using SD had employed the technique for a period of over 5 years. SD was performed only in inpatients in 79.2%, in 3.9% only in outpatients and in 16.9% in inpatients and outpatients. 59.5% of the respondents considered SD indicated for major depressive disorder, 17.7% for bipolar depression and 7.8% for other indications like insomnia, dysthymia, seasonal affective disorder and schizodepressive disorder.

Total SD and partial SD were equally well judged in terms of effectiveness. 2.2% thought that the effect of SD lasted for 1 week, 33.3% for 1 month and 31.5% even for 6 months in most patients. Only 17% considered SD a first line therapy and only 2.7% recommended it in suicidal patients. 53% had seen cases of hypomania as side effect and 13.2% named manic episodes as adverse events. SD was mostly applied as combination therapy: in 52.2% antidepressants were prescribed simultaneously, in 41% lithium, in 27.5% bright light therapy was used and in 4.4% sleep phase advance.

Conclusions: Our results indicate that one third of the psychiatric departments frequently uses SD and one further third makes general recommendations for SD but rarely uses the treatment. SD is mostly used as an additional treatment in combination with antidepressants, lithium or light therapy. The lack of large controlled studies for SD with its different forms probably still hinders the further use of the method. Therefore, further efforts must be undertaken to provide high-quality scientific evidence for the usage of SD.

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P.46 The feasibility and effectiveness of the web based cognitive behavioral therapy for adolescents with depression
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Background: Online interventions are feasible and efficacious in the prevention and treatment of a wide variety of mental health disorders. The cognitive behavioral therapy (CBT) for adolescents with depression is an effective treatment modality but adolescents are reluctant to visit the hospital for treatment by several understandable reasons. This study examined the feasibility and effectiveness of the web-based CBT for adolescents diagnosed with depression.

Methods: We developed the web based CBT for adolescents with depression which consists of 8 sessions and includes several therapeutic contents of the CBT for adolescents depression. Individual sessions take about 4 minutes and the therapists assisted the subjects to participate in the program by online and offline manner. Then, 29 Adolescents, aged 12 to 18 years, were recruited for the feasibility and effectiveness study. They were diagnosed with major depressive disorder or dysthymia or depressive disorder NOS according to the DSM-IV-TR. They were administered with the Center for Epidemiologic Studies Depression Scale (CES-D) at baseline and each session. Clinician examined them with Columbia Suicide Severity Rating Scale at baseline, 4 week, and 8 week of the study.

Results: At 4 week of study, 9 adolescents participated in the web-based intervention program. Their scores of CES-D declined from baseline to 4 weeks (36.3 to 27.2, $p=.8$). 2 adolescents completed study through week 8. Their scores on CES-D declined from baseline to 8 weeks (33 to 15). However 26 adolescents were terminated prematurely.

Conclusions: Although many adolescents reported the strengths of the web based CBT program, most adolescents did not complete the whole CBT session because of low level of motivation and difficulty of sustainability of attention span. There is a need to simplify the intervention program for easy completion and more active support and assist systems should be combined with the web CBT program.

P.47 Psychosocial factors associated with suicidal attempt among the adolescents with suicidal ideation

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Objective: Suicide in adolescent dramatically increases after age of 15, and it becomes one of the most common cause of death at that age period in Korea. The suicidal ideation is one of the most important risk factor of suicidal attempt. The aim of this study was to examine the associated psychosocial factors of suicidal attempt among the adolescents with suicidal ideation.

Method: We analyzed 1424 cases with suicidal ideation of total 4421 completed cases. We collected sociodemographic dates and used K-scale for internet addiction, School bullying scale, Conners-Wells Adolescent Self-report Scale, Beck Depression Inventory, Global Assessment of Recent Stress, Dysfunctional Impulsivity Scale, Self-Esteem Scale and Resilience Test.

Results: 1424 (32.2%) of total 4421 answered to experience a suicidal ideation. It was 231 (16.2%) that the subjects with suicidal attempt among the subjects with suicidal ideation. There was no gender difference between suicidal attempt group and suicidal ideation group). Junior high school students was more suicidal attempt than high school students ($p=.23$) and it were associated with suicidal attempt that perceived

familial support ($p<.1$), family satisfaction ($p=.8$), perceived body weight($p=.3$), obesity($p=.8$) experiencing smoking($p=.1$), experiencing drinking($p=.27$), school bullying($p<.1$), internet addiction($p<.1$), ADHD($p<.1$), depression($p<.1$), self-esteem($p<.1$), resilience($p<.1$), impulsivity($p<.1$) and stress($p=.8$). The results of multivariate logistic regression analysis were as following. Junior high school students (OR 1.17, 95%CI 1.181-2.612, $p=.5$), depression (OR 2.157, 95%CI 1.394-3.336, $p<.1$), resilience (OR .98, 95%CI .967-.992, $p=.31$) and impulsivity (OR 1.69, 95%CI 1.2-1.14, $p=.43$) were significant related to suicidal attempt among adolescents with suicidal ideation.

Conclusion: This study showed affecting factors to suicidal attempt among the high-risk adolescents with suicidal ideation. Depression was the strongest risk factor of suicidal attempt. Grade and impulsivity were associated with suicidal attempt. While resilience was the protecting factor to suicidal attempt. The results of this study could use as basic data for development of effective programs to intervene for high risk suicidal adolescents.

P.48 Psychosocial factors associated with suicidal ideation among the adolescents with self-harm behavior

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Objective: Suicide in adolescent dramatically increases after age of 15, and it becomes one of the most common cause of death at that age period in Korea. Self-harm behavior is one of the most important risk factor of suicide. The aim of this study was to examine the associated psychosocial factors of self-harm behavior highly related to suicide as compare to adolescents with suicidal ideation and without suicidal ideation accompanying self-harm behavior.

Methods: We surveyed using self-reporting questionnaire and analyzed 613 cases with self-harm behavior of total 4421 completed cases. We collected sociodemographic dates and used K-scale, School bullying scale, Conners-Wells Adolescent Self-report Scale, Beck Depression Inventory, Global Assessment of Recent Stress, Dysfunctional Impulsivity Scale, Self-Esteem Scale and Resilience Test.

Results: 613 (13.8%) of total 4421 answered to experience self-harm behavior for last 1year. It was 352 (57.4%) that the adolescents with suicidal ideation among the adolescents with self-harm behavior. It was associated with self-harm behavior accompanying suicidal ideation that sex ($p<.1$), socioeconomic status ($p=.12$), experiencing smoking ($p=.44$), experiencing drinking ($p=.5$), depression ($p<.1$), school bullying ($p=.19$), internet addiction ($p=.5$), self-esteem ($p<.1$), resilience ($p<.1$), impulsivity ($p=.1$) and stress ($p<.1$). The results of multivariate logistic regression analysis were as following. Girls (OR 2.447, 95%CI 1.588-3.771, $p<.1$), depression (OR 2.989, 95%CI 1.89-4.729, $p<.1$), experiencing drinking (OR 1.826, 95%CI 1.186-2.811, $p=.6$) and stress (OR 1.17, 95%CI 1.2-1.32, $p=.31$) were significantly related to self-harm behavior accompanying suicidal ideation.

Conclusion: This study showed affecting factors to adolescents with self-harm behavior accompanying suicidal ideation. Depression was the strongest risk factor of suicidal ideation among adolescents with self-harm behavior. Girls, experiencing drinking and highly perceived stress were associated self-harm behavior to suicidal ideation. The results of this study could use as basic data for development of effective programs to intervene for high risk suicidal adolescents.

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