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Oral communications

Oral communications 01: Anxiety disorders and somatoform disorders part I

OR0001

Is there a vicious circle during smoking cessation process: Do anxiety and depression decrease abstinence rates and, in reverse, low abstinence increase anxiety and depression?

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Introduction and objectives.– Some publications demonstrate that low baseline scores on scales of anxiety or depression before smoking cessation, predict abstinence rates. Conversely, other studies suggest that abstinence does not increase anxiety and/or depression, thought this remains controversial. There are no publications investigating the presence of a vicious circle between low abstinence rates and anxiety and depression. Our objective is to determinate the existence of this virtuous circle during the entire smoking cessation process.

Methods.– An analysis of a prospective longitudinal study including 291 smokers was performed. Variables: gender, age, continuous abstinence, scores of the Beck Anxiety Inventory (BAI), the short Beck Depression Inventory (BDI-II) and the Anxiety Subscale of the Hospital Anxiety and Depression scale (HAD-A) and other variables designed to assess BAI, BDI-II and HDA-A changes. A binary logistic regression statistical analysis was performed to determine whether anxiety and/or depression predict abstinence. An ANOVA-one factor analysis was performed to assess whether abstinence predicts a decline in anxiety and/or depression levels.

Results.– Low anxiety or depression levels as per BAI, BDI-II-Short y HAD-A scales, significantly predict abstinence. On the contrary, abstinence does not predict anxiety nor depression levels during the smoking cessation process.

Conclusions.– Low levels of anxiety and/or depression predict abstinence; but abstinence predicts neither a decline nor an increase in anxiety and/or depression during smoking cessation. Our findings are not consistent with a vicious circle. These conclusions are clinically relevant and underline the importance of optimizing treatments to control anxiety and depression during the quitting process.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0002

Functioning and quality of life in bipolar disorder: How are they correlated? An observational study

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Introduction.– Studies show that patients with bipolar disorder (BD) have poorer quality of life (QOL) and worst functioning, but only few of them focus on the link between these two variables, and on factors influencing them. Functioning seems to be more "objective", as it is evaluated by physicians, than QOL, which is more difficult to assess.

Objectives.– The aim of this observational study was to search for correlations between QOL and functioning scales.

Methods.– A total of 134 patients from the Montpellier FondaMental Advanced Center of Expertise for Bipolar Disorder with BD were included in the study. QOL was measured using the self-report World Health Organization Quality of Life (WHOQOL) scale, and functioning by the physician, using the Functioning Assessment Short Test (FAST) scale. Others parameters were collected like age, adherence (using Medication Adherence Rating scale – MARS), and scores on depression and mania scales. Then correlation analysis was conducted between these parameters.

Results.– We found a strong negative correlation between WHOQOL and FAST scales, particularly on the autonomy, professional and cognitive FAST's sub-scales. However no correlation was detected with adherence, age, or education level. Interestingly, no correlation was found between WHOQOL or FAST and mania scales, whereas a strong one existed between depression scales and WHOQOL and FAST.

Conclusions.– We showed that the physician's evaluation of functioning reflect the QOL estimated by the patient himself. Therefore asking questions about functioning could help physicians to better evaluate QOL.

OR0003

The effects of cilostazol on the monoamine transporter, which is known as cellular target of antidepressants

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Introduction.– Depressive disorder is considered to be a common and important neuropsychiatric post-stroke complication. Most inhibitors of the monoamine transporters, especially of the norepinephrine transporter (NET) and serotonin transporter (SERT), are clinically important antidepressants. Those antidepressants increase extracellular monoamine concentration by inhibiting the neuronal re-uptake of monoamines through the monoamine transporters. Most antidepressants act through inhibition of either the NET or the SERT or both transporters. Cilostazol is a selective phosphodiesterase III inhibitor that was originally prescribed as an anti-platelet agent, and increases cerebral blood flows in the cerebral infarction. Additionally, it acted as a neuroprotective agent by increasing cyclic adenosine monophosphate levels. The antidepressive effects of cilostazol on post-stroke depression have been reported, but the exact mechanism of this action is unknown.
Aims.– In this study, we examined the effects of cilostazol on NET and SERT function.
Methods.– SK-N-SH and SERT-transfected COS-7 cells were incubated with [³H]norepinephrine (NE) or [³H]serotonin (5-HT) in the presence or absence of cilostazol to assess the monoamine uptake.
Results.– Cilostazol decreased the [³H]NE uptake by SK-N-SH cells and the [³H]5-HT uptake by SERT-transfected COS-7 cells in a concentration-dependent manner.
Conclusions.– The blood concentration of cilostazol in treating patients with cerebrovascular disease has been reported to be 13.8 mM after a single oral dose of 100 mg. These results indicate that cilostazol inhibit NET and SERT function at clinically relevant concentration, which is likely to show the antidepressant effect on post-stroke depression.
Source of findings.– This study is supported by JSPS KAKENHI Grant Number 16K16456.
Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0004

Anxiety disorders and differentiation of self

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Introduction.– Kerr and Bowen (1988) argued that individuals with a less differentiated self were more likely to experience anxiety, function less effectively in stressful situations, and suffer from physiological and relational psychological symptoms in social situations. In the recent years, these suggestions have been the focus of a great empirical research. These studies revealed that well differentiated individuals enjoy good physical and psychological health (e.g. Skowron, Stanley & Shapiro, 2009; Lampis, Cataudella, Busonera & Skowron, 2017) and are less anxious (e.g. Skowron & Dendy, 2004; Peleg & Yitzhak, 2011).
Objectives.– Starting from these premises, the main objective of our investigation was to compare a normative sample (n = 69, control group) and two samples of adults seeking therapeutic services for couple relationship problems (n = 41) and for anxiety and panic (n = 47), to analyze differences on the levels of differentiation of self.
Method.– The various components of differentiation of self (emotional reactivity, emotional cut-off, emotional fusion and I-position) and the levels of anxiety were investigated using the Differentiation of Self Inventory Revised (DSI-R) and the Symptom Check List Revised (SCL-90-R).
Results.– We found that participants of the clinical sample of adults seeking therapeutic services for anxiety and panic had significantly higher scores in the Emotional cut-off scale and significantly lower scores in the I-position scale.
Conclusion.– The research revealed the importance of differentiation of self-processes to achieving an understanding of anxiety and panic disorders in research and clinical practice.
Disclosure of interest.– The authors have not supplied a conflict of interest statement.
References not supplied

OR0005

Duloxetine augmentation in resistant obsessive compulsive disorder: A double blind controlled clinical trial

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Introduction.– The aim of this study is to evaluate the efficacy of duloxetine augmentation in treatment of resistant Obsessive Compulsive Disorder (OCD).
Methods.– This augmentation trial was designed as an 8-week randomized controlled, double blind study. Forty-six patients suffering from OCD who had failed to respond to at least 12 weeks of treatment with a selective serotonin reuptake inhibitor (fluoxetine, citalopram or fluvoxamine) were randomly allocated to receive duloxetine or sertraline plus their current anti OCD treatment. Yale-Brown Obsessive Compulsive Scale (Y-BOCS) was the primary outcome measure. Treatment response was defined as 25% or more decrease in scores of Y-BOCS. The mean dosage of duloxetine was 44.4 mg/day (range: 20–60 mg/day) and the mean dosage of sertraline was 123.8 mg/day (range: 50–200 mg/day).
Results.– Forty six patients (24 of 30 in duloxetine group and 22 of 27 in sertraline group) completed the trial. Both groups showed improvement over the 8-week study period (mean Y-BOCS total score at week 8 as compared with baseline: $P < .001$ & $P < .001$) without significant difference ($P = .861$). Those receiving duloxetine plus their initial medications experienced a mean decrease of 33.0% in Y-BOCS score and the patients with sertraline added to their initial medication experienced a mean decrease of 34.5% in Y-BOCS.
Discussion.– Our double blind controlled clinical trial showed duloxetine to be as effective as sertraline in reducing obsessive and compulsive symptoms in resistant OCD patients. However, our study is preliminary and larger double blind placebo controlled studies are necessary to confirm the results.
Disclosure of interest.– The author has not supplied a conflict of interest statement.

OR0006

Increased methylation at *SLC6A4* gene is associated with somatization symptoms in women but not in men: A sex-specific effect identified in a non-clinical sample

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Introduction.– Depression is a leading cause of disability worldwide with a striking difference in its prevalence according by sex; women being twice as vulnerable as men. The SLC6A4 gene encodes the serotonin transporter, which reuptakes serotonin from the synaptic cleft. This transporter is one of the main pharmacological targets of currently available antidepressants. Thus, both genetic and epigenetic variability at this gene have been researched in association with depression and associated phenotypes.

Objectives.– To assess methylation variability at the SLC6A4 gene in association with anxious-depressive disorders and subclinical psychological symptoms.

Methods.– Overall, 148 twin subjects (UB twin register) from the general population were assessed for lifetime history of psychiatric disorders (DSM-IV criteria, SCID) and psychological symptoms as experienced in the last 30 days (Brief Symptom Inventory, BSI). Peripheral blood-derived genomic DNA methylation at SLC6A4 promoter region was assessed by means of pyrosequencing technology (5 CpG sites analyzed).

Results.– SLC6A4 methylation was significantly associated with gender of the participants ($P < 0.001$); women being more methylated than men in all 5 CpG sites analyzed. SLC6A4 methylation was significantly associated with the somatization subscale score of the BSI ($P < 0.02$ in all 5 CpG sites analyzed) in a female-specific fashion. SLC6A4 methylation was not associated with categorical diagnosis.

Conclusions.– SLC6A4 methylation correlated to the somatization dimension of the BSI scale in women. Sex-specific methylation of this region points to its relevance in mediating known sex differences with regard to psychopathology.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0007

Acute cardiovascular risk in general population with anxiety in Russia/Siberia: Gender features. WHO program Monica-psychosocial study

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Purpose.– To evaluate the influence of personal anxiety on risk of myocardial infarction (MI) and stroke in general population of Russia/Siberia.

Methods.– In frame of the third screening WHO program "MONICA-psychosocial" a random representative sample of the population aged 25–64 in Novosibirsk in 1994 (men: $n = 657$, women: $n = 870$) was surveyed. The program included: registration of socio - demographic data; personal anxiety was studied with Spielberger test. Over 16-year period cases of MI and stroke incidence in women (15 and 35) and men (30 and 22) were identified, respectively. Cox regression model was used for relative risk assessment (HR)

Results.– Over 16 years, the risk of myocardial infarction and stroke in women with high anxiety level (HLA) was 4.19-fold and 3.5-fold higher, respectively. HR was 3.7 and 4.43 in men, respectively. After adjustment for age and social parameters, HR risk of MI and stroke was 5.16 and 3.5, respectively for women; $HR = 1.79$ and $HR = 3.2$ for men with HLA, respectively. The risk of MI was higher in women aged 55–64yy with HLA ($HR = 5.95$), than men ($HR = 3.56$). The greatest risk of stroke in presence of high anxiety was in divorced ($HR = 5.017$) and widowed men ($HR = 3.848$), aged 55–64 years ($HR = 5.8$).

Conclusion.– Anxiety is the most potent psychosocial risk factors for myocardial infarction and stroke in general population. The risk of MI was higher in women but stroke in men over 16-years period.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0008

Prenatal hypercortisolemia alters the course of neuronal maturation of hippocampal neurons and anxiety-like behavior in the rat

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Introduction.– It has been reported that adult individuals exposed to severe early stressful experiences exhibit posttraumatic stress disorder (PTSD) and hippocampal volume reduction. Since the stressful environmental conditions generate elevated levels of circulating glucocorticoids (GCs), it is likely that GCs could modify the time course of hippocampal development, predisposing individuals to exhibit long-term PTSD. Thus, the objectives of the current study were to analyzed whether prenatal administration of synthetic GCs alters the hippocampal neuronal morphology, brain derived neurotrophic factor (BDNF) expression and anxiety-like behaviors at three postnatal ages: infancy (postnatal day 22, P22), adolescence (P52) and young adulthood (P82).

Methods.– Pregnant animals were randomly classified in two groups: control-saline (CON, $n = 6$) and betamethasone-treated (BET, $n = 5$). Mothers of BET-P22, P52 and P82 groups received two courses of betamethasone subcutaneously ($170 \, \mu g \, kg^{-1}$) on gestational day 20 (G20), separated by an 8-hour interval. CON mothers received equal volume (1 mL) of saline. Anxiety-like behavior and neuronal changes were performed at P22, 52 and 82. The dose used here is equivalent to that used in cases of preterm delivery.

Results.– Prenatal BET administration is related with (i) a significant anxiety-like behavior, (ii) hippocampal neuronal atrophy, and (iii) diminished BDNF expression. These neurobehavioral changes were significant in late (P52 and P82) but not early (P22) postnatal ages.

Conclusions.– Prenatal administration of synthetic GCs (BET) during the last trimester of gestation in a rat's animal model is associated with protracted changes in hippocampal neuronal morphology, BDNF expression and anxiety-like behavior in the offspring.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0009

Comparative and additive benefits of cognitive restructuring versus exposure-only treatment in anxiety: A longitudinal multilevel meta-analysis on symptom relapse

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Introduction.– Although exposure-based treatments seem to be a success story for anxiety disorders, relapse is not uncommon. There is a continued controversy over whether exposure (EXP) should be complemented or replaced by cognitive techniques, such as cognitive restructuring (CR), in order to reduce or prevent relapse rates in anxiety. This is an important theoretical and clinical debate. Objective: Therefore, the aim of the meta-analysis was (a) to compare EXP to CR with respect to symptom relapse in anxiety disorders and (b) to contrast EXP vs. EXP + CR for potential additive advantages.

Methods.– Traditional and longitudinal multilevel meta-analyses were conducted in order to examine the magnitude of the difference between EXP vs. CR and EXP vs. EXP + CR. Symptom specific outcomes were examined.

Results.– Overall, 21 randomized controlled trials examining EXP vs. CR and 20 randomized controlled studies examining EXP vs. EXP + CR were included in the current meta-analysis. None of the longitudinal analyses of growth from termination to follow-up produced statistically significant effects (EXP vs. CR: B_0 coeff. = 0.05, $P = 0.50$, B_1 coeff. = −0.02, $P = 0.75$; EXP vs. EXP + CR: B_0 coeff. = 0.14, $P = 0.09$, B_1 coeff. = −0.01, $P = 0.93$). Potential moderator variables were examined.

Conclusions.– Theoretical and clinical implications will be discussed.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0010

Unraveling the neural circuit mechanism for treatment of fear disorders via alternating bilateral sensory stimulation in mice

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Introduction.– Patients with post-traumatic stress disorders (PTSD) suffer from fear memories which persist even after the actual fear-inducing aversive situation is gone. The Eye Movement Desensitization and Resetting, a psychotherapy regiment utilizing'alternating bilateral sensory stimulation (ABS)', is being used for treating PTSD patients. However, innate brain mechanisms underlying those treatment effects have not been defined.

Objective.–To study the neural mechanism for fear memory erasure.

Methods.– We successfully established long-lasting fear reduction in mice by pairing non-invasive visual stimulation with the conditioned stimulus during fear extinction. Using optogenetic tools and electrophysiology, we have tried to define the circuit mechanism underlying the ABS-mediated fear memory erasure.

Results.– Among the several patterns of visual stimuli tested, alternating bilateral stimulations (ABS) was the most effective in the enhancement of fear extinction with consequential erasure. Optogenetic manipulation revealed that the superior colliculus-mediodorsal thalamus circuit is involved, with necessity and sufficiency, in preventing the return of fear. The ABS-pairing drove mediodorsal thalamic activities throughout the extinction session, and induced a sustained enhancement of inhibitory neurotransmission in the amygdala.

Conclusions.– These results demonstrate that simultaneous and persistent engagement of the colliculo-thalamic pathway during fear extinction induces plasticity changes in the amygdala, leading to sustained attenuation of traumatic memories resulting in their erasure.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0011

Adjunctive risperidone for post-traumatic stress disorder: A systematic review and meta-analysis

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Introduction.– Failure to respond to treatment occurs in 40–47% of patients with Post-traumatic stress disorder (PTSD). Early studies suggested that adjunctive risperidone with antidepressants may have benefit in patients with PTSD.

Objectives.– To systematically review the efficacy and the tolerability of risperidone, as an adjunctive treatment, for PTSD.

Methods.– We considered all relevant randomized, controlled trials (RCTs) of risperidone, as adjunctive therapy, was investigated in comparison with placebo or other treatments in patients with PTSD. The primary outcome was the change in scores of PTSD rating scales. Secondary outcomes measures were leaving the studies early, Clinical Global Impressions-Severity (CGI-S), Clinical Global Impression-Improvement (CGI-I) scale, Hamilton Anxiety Rating Scale (HAM-A) score, and adverse events.
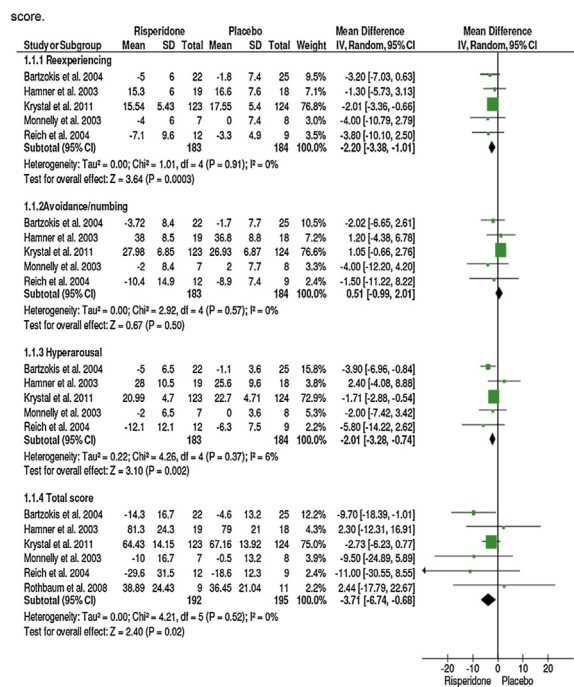
The Cochrane Central Register of Controlled Trials, PubMed, PsycINFO®, the EU Clinical Trials Register database, and Clinical Trials.gov were searched (June 2013). Data was entered into the Review Manager (RevMan) software (Version 5.3).

Results.– Six RCTs ($n = 387$) were included. The PTSD total score was significantly lower in the risperidone group compared with the placebo group (mean difference −3.71, 95% confidence interval −6.74 to −0.68). Significantly greater improvements in reexperiencing and hyperarousal subscales were found in the risperidone group.

There were significant differences, favouring the risperidone group, on the CGI-S and the HAM-A score. The average dosage of risperidone was 2.05–2.5 mg/day.

Figure 1 Risperidone versus placebo: average change or endpoint in PTSD subscores and total score.

Conclusions.– Our results suggest that low dosages of risperidone might be effective in the adjunctive treatment of PTSD, particularly in the areas of re-experiencing and hyperarousal.

score.

Study or Subgroup	Risperidone Mean	SD	Total	Placebo Mean	SD	Total	Weight	Mean Difference IV, Random, 95% CI
1.1.1 Reexperiencing								
Bartzokis et al. 2004	-5	6	22	-1.8	7.4	25	9.5%	-3.20 [-7.03, 0.63]
Hamner et al. 2003	15.3	6	19	16.6	7.6	18	7.1%	-1.30 [-5.73, 3.13]
Krystal et al. 2011	15.54	5.43	123	17.55	5.4	124	76.8%	-2.01 [-3.36, -0.66]
Monnelly et al. 2003	-4	6	7	0	7.4	8	3.0%	-4.00 [-10.79, 2.79]
Reich et al. 2004	-7.1	9.6	12	-3.3	4.9	9	3.5%	-3.80 [-10.10, 2.50]
Subtotal (95% CI)			183			184	100.0%	-2.20 [-3.38, -1.01]
1.1.2 Avoidance/numbing								
Bartzokis et al. 2004	-3.72	8.4	22	-1.7	7.7	25	10.5%	-2.02 [-6.65, 2.61]
Hamner et al. 2003	38	8.5	19	36.8	8.8	18	7.2%	1.20 [-4.38, 6.78]
Krystal et al. 2011	27.98	6.85	123	26.93	6.87	124	76.6%	1.05 [-0.66, 2.76]
Monnelly et al. 2003	-2	8.4	7	2	7.7	8	3.3%	-4.00 [-12.20, 4.20]
Reich et al. 2004	-10.4	14.9	12	-8.9	7.4	9	2.4%	-1.50 [-11.22, 8.22]
Subtotal (95% CI)			183			184	100.0%	0.51 [-0.99, 2.01]
1.1.3 Hyperarousal								
Bartzokis et al. 2004	-5	6.5	22	-1.1	3.6	25	15.8%	-3.90 [-6.96, -0.84]
Hamner et al. 2003	28	10.5	19	25.6	9.6	18	3.8%	2.40 [-4.08, 8.88]
Krystal et al. 2011	20.99	4.7	123	22.7	4.71	124	72.9%	-1.71 [-2.88, -0.54]
Monnelly et al. 2003	-2	6.5	7	0	3.6	8	5.3%	-2.00 [-7.42, 3.42]
Reich et al. 2004	-12.1	12.1	12	-6.3	7.5	9	2.2%	-5.80 [-14.22, 2.62]
Subtotal (95% CI)			183			184	100.0%	-2.01 [-3.28, -0.74]
1.1.4 Total score								
Bartzokis et al. 2004	-14.3	16.7	22	-4.6	13.2	25	12.2%	-9.70 [-18.39, -1.01]
Hamner et al. 2003	81.3	24.3	19	79	21	18	4.3%	2.30 [-12.31, 16.91]
Krystal et al. 2011	64.43	14.15	123	67.16	13.92	124	75.0%	-2.73 [-6.23, 0.77]
Monnelly et al. 2003	-10	16.7	7	-0.5	13.2	8	3.9%	-9.50 [-24.89, 5.89]
Reich et al. 2004	-29.6	31.5	12	-18.6	12.3	9	2.4%	-11.00 [-30.55, 8.55]
Rothbaum et al. 2008	38.89	24.43	9	36.45	21.04	11	2.2%	2.44 [-17.79, 22.67]
Subtotal (95% CI)			192			195	100.0%	-3.71 [-6.74, -0.68]

1.1.1 Reexperiencing — Heterogeneity: $Tau^2 = 0.00$; $Chi^2 = 1.01$, df = 4 (P = 0.91); $I^2 = 0\%$. Test for overall effect: $Z = 3.64$ (P = 0.0003)

1.1.2 Avoidance/numbing — Heterogeneity: $Tau^2 = 0.00$; $Chi^2 = 2.92$, df = 4 (P = 0.57); $I^2 = 0\%$. Test for overall effect: $Z = 0.67$ (P = 0.50)

1.1.3 Hyperarousal — Heterogeneity: $Tau^2 = 0.22$; $Chi^2 = 4.26$, df = 4 (P = 0.37); $I^2 = 6\%$. Test for overall effect: $Z = 3.10$ (P = 0.002)

1.1.4 Total score — Heterogeneity: $Tau^2 = 0.00$; $Chi^2 = 4.21$, df = 5 (P = 0.52); $I^2 = 0\%$. Test for overall effect: $Z = 2.40$ (P = 0.02)

Mean Difference IV, Random, 95% CI — axis: -20 -10 0 10 20, Risperidone Placebo

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0012

Generalized anxiety disorder in urban China: Prevalence, awareness and humanistic and economic burden

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Introduction.– Generalized anxiety disorder (GAD) is a chronic psychiatric condition characterized by excessive anxiety and worry. Limited published research has quantified the GAD prevalence and its burden in China.

Objectives.– This cross-sectional study examined the prevalence and burden of GAD among adults in urban China.

Methods.– This study utilized existing data ($n = 36,520$) from the National Health and Wellness Survey (NHWS), a cross-sectional and self-administered online questionnaire of a representative sample of urban adult population in China. Prevalence of self-reported diagnosed GAD and undiagnosed [positively screened (Generalized Anxiety Disorder (GAD-7) score ≥ 10] without a reported GAD experience) were estimated. GAD patients were compared with non-anxious respondents (negatively screened without a history of GAD experience/diagnosis) in terms of quality of life (QoL), resource utilization, and work productivity and activity impairment using multivariate generalized linear models, controlling for demographics and clinical characteristics.

Results.– The prevalence of undiagnosed/diagnosed GAD was 4.6% in China with only 0.5% of GAD patients reporting a diagnosis. Compared with non-anxious respondents, GAD patients had significantly lower mental component summary scores (34.3 vs. 35.0), physical component summary scores (47.8 vs. 51.2), and health state scores (0.59 vs. 0.69) using the SF-36v2, more work productivity (52.2% vs. 29.5%) and activity impairment (47.2% vs. 26.4%),

and greater number of healthcare provider visits (2.4 vs. 1.4), emergency room visits (0.7 vs. 0.4) and hospitalizations (0.5 vs. 0.2) in the past six months.

Conclusions.– GAD may be substantially under-diagnosed in urban China. More healthcare resources should be invested to alleviate the burden of GAD.

Oral communications 02: Bipolar disorder

OR0013

Ventral striatal activity during win anticipation: A comparison between euthymic bipolar type Ii and unipolar patients

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Introduction.– Early differentiation between bipolar and unipolar depressed patients is crucial for a correct treatment plan and patients' prognosis. This differentiation is particularly challenging in bipolar type II disorder, where the identification of potential biomarkers for the disorder has become a research priority.

Objectives.– The aim of the study was to investigate the activity in the ventral striatum during the anticipation of potential win (reward) in euthymic bipolar type II and unipolar patients.

Methods.– This cross-sectional study compared the BOLD responses in the ventral striatum between a group of healthy controls ($n = 14$) and euthymic bipolar type II ($n = 18$) and unipolar ($n = 18$) patients, during a widely used fMRI paradigm including periods of win anticipation and win outcome.

Results.– During win anticipation, both bipolar II and unipolar patients showed increase bilateral BOLD activity compared to healthy controls. However, only bipolar II participant showed increased BOLD activity during win anticipation compared to loss anticipation. Less compelling results were obtained during win output, where unipolar depressed showed increased BOLD for the contrast win output > loss output only compared to healthy controls.

Conclusions.– Activity in the ventral striatum–a key node of the reward brain network–associated with the anticipation of potential win appears increased in euthymic bipolar patients compared with unipolar and control participants. This difference, though, seem to only be observed when accounting for activity associated with anticipation of potential loss, likely associated with an overall increased arousal. Abnormally elevated ventral striatum activity during reward anticipation may be biomarker of Bipolar II.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0014

Differential patterns of psychotropic prescription in bipolar I and Ii disorder among European and American patients not in a syndromal episode

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Introduction.– Limited evidence is available about differential pharmacological management of Bipolar Disorder (BD) I vs II. Indeed, pharmacological treatment choices have been usually based on specific clinical dimensions rather than diagnostic subtypes.
Objectives.– The present study was aimed to assess different patterns of psychotropic prescription in European and American bipolar patients, not in a syndromal episode, referred to Milan and Stanford University BD Clinics, respectively, and stratified by bipolar subtype.
Methods.– Prevalence and clinical correlates of antidepressant (AD), antipsychotic (AP), and mood stabilizer (MS) use, in aggregate and individually, were compared in BDI versus BDII patients, either in Milan and Stanford pooled sample and in Milan vs Stanford samples.
Results.– BDI ($n = 424$) vs BDII ($n = 239$) patients (Milan and Stanford pooled) significantly more often took APs (69.8% vs 44.8%), MSs (68.6% vs 57.7%), and valproate (40.1% % vs 17.5%), but significantly less often ADs (23.1% vs 55.6%) and lamotrigine (9.9% vs 25.2%). Milan ($n = 380$) compared with Stanford sample ($n = 283$) significantly more often took APs (BDI and BDII), ADs (BDII), and valproate (BDII), but significantly less frequently MSs (BDI) and lamotrigine (BDI).
Conclusions.– The present study highlights specific differences in BD psychotropic prescription patterns, either considering the geographic areas of recruitment and the diagnostic subgroups. Investigation on pharmacotherapy in relation to bipolar subtype and treatment location is warranted in order to enhance clinical management of patients suffering from different bipolar disorders.
Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0015

Prague bipolar offspring study: Psychopathological, neuropsychological and QEEG correlates

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Introduction.– Studies in adults show that approximately 30–60% of individuals diagnosed with bipolar disorder (BD) retrospectively report the onset of their illness in childhood.
Objectives.– To determine psychopathology, cognitive functions and identify early markers in EEG cortical sources, cortical connectivity and event-related potentials (ERPs) in a sample of offspring of parents with BD (BDO) compared to healthy controls (HC).
Methods.– Lifetime and current presence of DSM-5 diagnoses were assessed in 43 BDO (mean age: 12.5 ± 3.1 years) and 43 HC matched for sex, age and IQ. ERP(P300,N2/P3) and EEG were available for 34 subjects in both subgroups. The comparison of the distribution of current densities and functional connectivity was done by independent t-tests of log-transformed s/eLORETA values.
Results.– Thirty-seven BDO (86%) and 18 controls (42%) met criteria for at least one lifetime psychiatric diagnosis (adjusted $OR = 7.2$). While the groups did not differ in ERP and extended neuropsychological testing, significant differences were observed in alpha-1, beta-3 and gamma sources in resting EEG: BDO showed decreased alpha-1, beta-3 and gamma sources in temporal gyri and cingulate as well as decreased connectivity in alpha-1 between bilateral temporal areas and an increase within the right fronto-temporal areas in gamma band.
Conclusions.– We found a higher rate of lifetime anxiety and mood disorders in children at confirmed familial risk for BD. The differences in activity during resting EEG could represent trait vulnerability marker for later onset of BD and suggest an altered functioning of cortical networks in high-risk population.
Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0016

Relationship between childhood adversity and impulsivity in major depression and bipolar types I and Ii

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Background.– Impulsivity in mood disorders has been associated with increased risk for substance misuse and suicide. Childhood adversity is also common risk factor for impulsivity in mood disorders. To date, there is data lacking related to the specific differences and predictors (including childhood adversity) of impulsivity among the mood disorder types.
Aims.– To examine the prevalence of impulsivity in patients with major depression (MDD), bipolar type I (BPI) or bipolar type II (BPII). To examine childhood adversity as a modifier of the association between impulsivity and mood disorder type.
Methods.– Participants were recruited from the McGill University Health Center in Montreal, Quebec. Mood diagnoses were determined using the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID). Barrett's Impulsivity Scale (BIS) was impulsivity in the attentional, motor and non-planning domains. Childhood adversity was assessed using the Childhood Experiences of Care and Abuse Questionnaire (CECA-Q). ANOVA and kruskal-wallis tests and linear regression models were conducted.
Results.– Impulsivity in the attentional and non-planning domains was greater in BPII than MDD and BPI. However, when childhood adversity is examined, the association between mood disorder type was explained by maternal psychological abuse which is associated with greater impulsivity in the attentional domain. Similarly, for impulsivity in the non-planning domain, the association between

mood disorder type was accounted for by (1) maternal psychological abuse and (2) maternal physical abuse. Psychological abuse by mother is associated with greater impulsivity in the motor domain.

Conclusions.– Childhood adversity accounts for the differences in mood disorders types and impulsivity.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0017

Evaluation of a cognitive remediation program, specific of working memory, in bipolar patients with memory complains

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Bipolar disorder is part of the most expensive and invalidating diseases in the world.

The psychosocial repercussions are important and can be invalidating.

Therefore, a functional handicap is so found during the phases of decompensation, but also in intercritical periods when various factors can be involved, particularly cognitive deficits or cognitive complaints.

A deficit in working memory is reported by several studies and seems to play an important role in the functioning of the patients. Cognitive remediation is a treatment in development in bipolar disorder, but few programs are available.

COGMED is a cognitive remediation program, specific of working memory, having demonstrated its efficiency in patients with traumatic brain injury or attention deficit/hyperactivity disorder.

Its duration is of 5 weeks and is made at home on the Internet.

We led a prospective study in order to evaluate the efficiency of this program in the functional improvement, for euthymic bipolar patients with memory complaints. Forty patients were included.

A clinical and neuropsychological evaluation was made before and later Cogmed program. The primary endpoint was patients functioning assessed by the FAST Scale.

There was a significant improvement in global functionment, and particularly in theses following functional domains: autonomy, cognitive and occupational.

Number of manic episodes was negatively correlated with the Funtional improvement.

We also found a significant decrease of memory and attentional complaints, assessed by Mac-Nair scale, which is a self-report questionnary.

COGMED is an effective program to decrease the functional handicap and cognitive complaints in euthymic bipolar patients.

Disclosure of interest.– The author has not supplied a conflict of interest statement.

OR0018

Lithium-associated tremor: Prevalence, associated factors and clinical consequences

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Introduction.– Lithium is the most recommended treatment for the prophylaxis of Bipolar Disorder (BD). Tremor is common adverse effects of lithium. This side effect is a frequent complaint of lithium-treated patient and has an important impact on the patient's quality of life. It is associated with poor adherence and treatment discontinuation.

Objectives.– The objective is to investigate the prevalence of lithium-associated tremor, its associated factors and its consequences.

Methods.– We conducted a literature review and descriptive analysis of the FACE-BD database (including $n = 2415$ patients with BD) to analyze the prevalence of lithium-associated tremor. The influence of clinical conditions such as age, sex, type of bipolar disorder, duration of illness, duration of lithium treatment, associated treatments, comorbidities and biological data were also analyzed. The impact of this tremor will also be studied on the compliance and social functioning.

Results.– First results show a prevalence of 45.6% ($n = 257$) lithium-associated tremor in lithium-treated patient in FACE-BD database, in agreement with the other studies. Factors associated with tremor and consequence (residual symptoms, functioning) will be described.

Conclusions.– This exploration will refine knowledge of lithium-associated tremor. We will also discuss the management of this side effect with drug strategies next to our results.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0019

Development of a system for safe monitoring of mood stabilizing treatment in remote rugged areas

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Introduction.– Treatment of bipolar disorder in developing world rural areas is complicated by difficulties to ensure safe monitoring of medication, and patients therefore seldom get access to best practice treatment.

Objective.–Development of a user-friendly device and a system making it possible to measure and monitor medication levels.

Methods.– To ensure safe mood stabilizing treatment in rural areas a micro sensor system is being developed by collaborators in a European consortium

Results.– An integrated approach for compiling and analyzing high-quality lithium treatment response data will be presented. By means of micro-sensor devices patients in rural areas are able to self-measure and subsequently send Lithium level results via smartphone to their psychiatrists.

Conclusions.– This project represents a concerted effort and a potential solution solving the problem of delivering efficacious and safe'state of the art' medical treatment for Bipolar disorder in places where Health care resources are particularly sparse.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0020

Facial emotion recognition in bipolar disorder

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Background.– This study aims to research the recognition of facial emotions in a clinical sample of people with bipolar disorder as results found in the investigation to determine if the bipolar subjects are competent for the recognition of emotions are contradictory.

Methods.– Participants were 21 persons with bipolar disorder in euthymic phase and 21 control subjects. Both groups passed tests of an e-prime program having as a purpose the recognition of emotions with positive and negative valence and intensity of each emotion perceived. The emotions presented belonged to the category of joy, anger, sadness, fear or neutral.

Results.– The results showed no significant differences in the recognition of facial expressions in persons with bipolar disorder and control subjects. Differences were found in the reaction time: people with bipolar disorder were slower to recognize emotions, especially those of low intensity There are significant differences between the control group and the bipolar disorder group, the latter having a longer reaction time in all emotional patterns, except in anger. People with bipolar disorder have greater variability than the control group in all emotions, except in anger.

Conclusions.– Clearly different patterns are obtained among subjects with bipolar disorder compared to controls in the sense that they present a greater selective difficulty for negative emotional expressions (except in the case of anger) and for neutral ones.

Disclosure of interest.– The author has not supplied a conflict of interest statement.

OR0021

Effect of lurasidone on cognition in children and adolescents with bipolar depression: A 6-month interim analysis of a 2-year open-label extension study

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Introduction.– Limited data are available on cognitive function in pediatric patients with bipolar disorder.

Objective.–To evaluate the effects of lurasidone on cognition in children and adolescents with bipolar depression.

Methods.– Patients aged 10–17 years with bipolar I depression who completed 6 weeks of double-blind (DB), placebo-controlled treatment with flexibly dosed lurasidone (18.5–74 mg/d) were enrolled in a 2-year, open-label study in which patients were continued on lurasidone, or switched from placebo to lurasidone. Cognitive function was assessed with the Brief CogState battery, which evaluates four cognitive domains: processing speed (detection task), attention/vigilance (identification task), visual learning (one card learning task), working memory (one back task, speed & accuracy). Based on normative data, an overall cognitive composite Z-score was calculated as the average of the standardized Z-scores for each of the four cognitive domains. We present here the results of a 28-week interim analysis.

Results.– Two hundred and twenty-three patients completed the DB study and entered the open-label extension study; 69.5% completed 28 weeks of treatment (mean daily dose, 52.6 mg). The cognitive composite Z-score showed impairment at DB baseline (−0.94). At week 28, overall improvement was observed in the cognitive composite Z-score (mean change, +0.19). For CogState domains, mean change at week 28 in Z-scores was observed for processing speed (+0.13), attention/vigilance (+0.18), visual learning (+0.18), working memory accuracy (+0.07), and working memory speed (+0.29).

Conclusions.– In this study of pediatric bipolar depression, 28 weeks of lurasidone treatment was not associated with cognitive impairment as measured by the Brief CogState battery.

Disclosure of interest.– Dr. Burdick has served as an advisory board member for Sunovion Pharmaceuticals and for Takeda Lundbeck. Drs. Goldman, Tocco, Deng, Cucchiaro, and Loebel are employees of Sunovion Pharmaceuticals Inc.

OR0022

Symptom improvement associated with lurasidone treatment of children and adolescents with bipolar I depression: Results of a short-term placebo-controlled trial

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Objective.–To evaluate change in specific depressive symptoms in children and adolescents presenting with bipolar depression who received short-term treatment with lurasidone.

Method.– Data in this secondary analysis were derived from a study of patients 10–17 years ($n = 343$) with bipolar I depression who were randomized to 6 weeks of double-blind treatment with lurasidone 20–80 mg/d or placebo. The primary endpoint was change from Baseline to Week 6 on the Children's Depression Rating Scale, Revised (CDRS-R) total score. Change from Baseline to Week 6 for each individual CDRS-R item was assessed with an ANCOVA using an LOCF approach. Cohen's d effect sizes were also calculated at Week 6.

Result.–At week 6 endpoint, treatment with lurasidone was associated with significant improvement vs. placebo in the CDRS-R total score (−21.0 vs. −15.3; $P < 0.0001$; $d = 0.45$). A total of 13 CDRS-R items (76%) were significantly improved on lurasidone: impaired school work ($P = 0.023$; $d = 0.25$), difficulty having fun ($P = 0.004$; $d = 0.31$), social withdrawal ($P < 0.0001$; $d = 0.43$), sleep disturbance ($P = 0.0001$; $d = 0.43$), appetite disturbance ($P < 0.05$; $d = 0.22$), irritability ($P = 0.026$; $d = 0.24$), excessive guilt ($P = 0.0032$; $d = 0.32$), low self-esteem ($P = 0.012$; $d = 0.27$), depressed feelings ($P = 0.0068$; $d = 0.29$), excessive weeping ($P = 0.014$; $d = 0.27$), depressed facial affect ($P = 0.0009$; $d = 0.36$), listless speech ($P < 0.0001$; $d = 0.43$), and hypoactivity ($P = 0.012$; $d = 0.27$). Improvement in 4 items was not significant: excessive fatigue, physical complaints, morbid ideation, and suicidal ideation.

Conclusions.– In this placebo-controlled study of children and adolescents with bipolar depression, 6 weeks of treatment with lurasidone was effective in treating a wide range of depressive symptoms assessed by the CDRS-R.

Disclosure of interest.– Dr. Singh receives research support from the National Institute of Mental Health, National Institute of Aging, the Office of Research in Women's Health, Stanford Child Health

Research Institute, Johnson & Johnson, and Neuronetics. She has served on an advisory board for Sunovion.

Drs. Goldman, Tocco, Pikalov, Deng, Cucchiaro, and Loebel are employees of Sunovion Pharmaceuticals Inc.

OR0023

Predominant polarity in bipolar I and Ii disorders: A five-year follow-up study

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Introduction.– Predominant polarity is a relatively new concept, involving categorizing patients with bipolar disorder (BD) based on polarity of their preceding illness course, using cut-off of two thirds of episodes.

Objectives.– Few prospective studies have investigated its predictive validity, or associated clinical features. We examined them within a long-term cohort study of bipolar I (BD-I) and bipolar II (BD-II) patients.

Methods.– In the Jorvi Bipolar Study (JoBS), 191 BD-I and BD-II psychiatric in- and outpatients were carefully diagnosed at baseline using SCID-I/P-interviews, and followed using life-chart methodology up to five years. Predominant polarity could be defined for 188 (98.4% of all) patients, based on their preceding illness course. Information on their prospective illness phases was available for 175 (93.0%) of these patients.

Results.– Predominant polarity was defined as manic in 30 (16%), intermediate in 90 (48%) and depressive in 68 (36%). The three groups differed in terms of their psychiatric comorbidity, with those with manic polarity having less anxiety, but more psychotic symptoms lifetime. Patients with manic polarity also spent significantly more time euthymic during follow-up. Analyses are ongoing, and the final results will be presented in the meeting.

Conclusions.– Psychiatric in- and outpatients with BD I or II can be classified according to their predominant polarity, and this classification has at least some predictive validity in long term. Those with predominantly manic polarity may be the most distinct of the three groups. Patients in different polarity groups differ also in their other clinically relevant characteristics, such as psychiatric comorbidity.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0024

How to distinct between unipolar and bipolar depression: The role of adhesion molecules

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Introduction.– Bipolar disorder and major depressive disorder are among the most frequent and the most severe mood disorders. Due to their shared symptomatology, and often unreported and delayed onset of manic or hypomanic episodes in bipolar disorder, patients with bipolar disorder are often mistakenly diagnosed with unipolar major depression.

Objectives.– The aim of the study was to explore the differences in the alterations of the investigated soluble adhesion molecules (sVCAM-1 and sICAM-1) with regard to unipolar (UD) and bipolar depression (BD) types, compared with healthy control group.

Methods.– The study has explored serum levels of sVCAM-1 and sICAM-1 in patients with bipolar ($n = 43$) or unipolar depression ($n = 93$) and compared them to healthy controls ($n = 73$). The adhesion molecules' levels of patient group have been analyzed in acute and remission phases.

Results.– Both patients in acute episode of unipolar and bipolar depression showed altered levels of adhesion molecules when compared to healthy control group. The results additionally show down regulation of sVCAM-1 and up regulation of sICAM-1 levels in both patient groups.

Conclusions.– Our results suggest that adhesion molecules, particularly sVCAM-1, could be relevant markers to distinct between patients with BD and UD as well as a component of complex inflammatory network associated with their partly common etiopathogenic base.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0025

Hippocampal subfields in suicidal attempters with bipolar disorder

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Introduction.– Volumetric hippocampal alterations have been reported in patients bipolar disorder (BP) and history of suicidal thoughts and behavior, but the effect of suicidality on the hippocampal subfields is still unknown in this population.

Objectives.– To investigate the relationship between history of suicide ideation/attempts and hippocampal subfield volumes in subjects with BP.

Methods.– We measured hippocampal subfields in 15 patients with BP and a lifetime history of suicide attempts (BP-SUI), 20 patients with BP without such history but with history of suicide ideation (BP-IDSUI), 20 patients without history of suicide attempt or ideation (BP-NSUI) and 30 healthy controls (HC). Hippocampal subfield volumes were obtained with 3T scans using FreeSurfer. Differences among groups were investigated using ANOVAs followed by post-hoc Scheffè test.

Results.– NSUI demonstrated greater volumes than SUI in the right CA1, CA2/3, CA4/DG, and subiculum. In the same subregions, HC showed greater volumes than SUI and IDSUI. Moreover, HC also showed greater left fimbria volumes than SUI, NSUI, IDSUI and greater right presubiculum volumes than SUI. NSUI showed greater right CA1 than IDSUI.

Conclusions.– Smaller volumes in the right CA2/3-DG and CA1-subicular complexes could represent the indirect evidence of the failure of emotional and stress regulation mechanisms in patients with suicidal thoughts and behavior. The greater damage in those regions in patients who attempted suicide could explain the higher reactivity to emotional stressful stimuli in this sub-population that could lead to suicide.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0026

Duration of lithium exposure and hippocampus/amygdala volumes in bipolar disorder

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Background.– Lithium treatment has been associated with different effects on limbic and subcortical gray matter structure volumes. Discrepancy could be explained by the time-dependent effect of lithium.

Objectives.– We investigated the effects of long- and short-term lithium treatment on limbic and subcortical gray matter structure volumes in patients with bipolar disorder (BP)

Methods.– Volumes of deep gray matter structures were measured using FreeSurfer in 40 subjects: 10 patients with BPI who were never exposed to lithium [no-exposure group (NE)], 10 patients with BP exposed to lithium for < 24 months [short-exposure group (SE)], 10 patients with BP exposed to lithium for > 24 months [long-exposure group (LE)] and 10 healthy controls (HC).

Results.– No differences between LE and HC were found. LE and HC have greater bilateral hippocampal and amygdalar volumes than NE. SE showed greater bilateral amygdalar volumes than NE and no differences as compared with LE. SE showed smaller bilateral hippocampal volumes than LE and HC, while no differences were found as compared with NE. Among the four groups, Among the four groups, no differences were found in the caudate, putamen, pallidum, thalamus and nucleus accumbens.

Conclusions.– Lithium treatment demonstrates a time-dependent selective effect on the hippocampus and the amygdala. Its action seems to differ between those two structures, with a short-term effect on the hippocampus and a long-term effect on both structures.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0027

Treatment compliance in patients with bipolar I disorder during remission

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Introduction.– Treatment compliance in patients with bipolar disorder is a complex issue which is determined by a wide array of factors.

Objectives.– Here, we aimed to explore the factors affecting the treatment compliance in patients with bipolar I disorder (BD-I) during remission.

Method.– The study sample consisted of 50 patients (M/F = 18/32, age = 40.6 ± 11.7) with BD-I according to DSM-IV-TR during remission (The Hamilton-Depression-Scale Scores < 7, The Young-Mania-Rating-Scale Scores < 7) who applied to an outpatient-psychiatric clinic of a university hospital between October 2014–July 2015. Sociodemographic data form, the Mini International Neuropsychiatric Interview, the Functioning Assessment Short Test (FAST), the Schedule for Assessment of Insight (SAI), the UKU Side Effect Rating Scale (UKU), the Multidimensional Scale of Perceived Social Support (MSPSS), the Medication Adherence Rating Scale (MARS) were applied to the participants. Higher scores on MARS suggest better compliance to treatment.

Results.– Total scores on MARS differed significantly depending on gender (M/F = $7.9 \pm 1.8/6.5 \pm 2.3$), employment (employed/unemployed = $7.7 \pm 1.9/6.1 \pm 2.3$), marital status (married/not-married = $7.7 \pm 2.0/6.2 \pm 2.3$) and comorbid generalized anxiety disorder (GAD) (not-present/present = $7.9 \pm 1.6/4.6 \pm 1.7$) ($P < 0.05$, $P < 0.02$, $P < 0.02$ and $P < 0.001$, respectively). The MARS Scores were significantly negatively correlated with total UKU scores ($r = -0.374$, $P = 0.007$) and positively correlated with SAI scores ($r = -0.422$, $P = 0.002$). Linear regression analysis yielded that comorbid GAD and employment status were the only significant variables affecting MARS scores ($P < 0.05$ for both).

Conclusions.– Co-morbid GAD and unemployment are related negatively with treatment compliance in patients with BD-I during remission. Treatment of the co-morbid GAD, especially with cognitive-behavioral therapeutic approaches and supporting occupational activities can positively affect treatment compliance, which should be revealed in further studies.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0028

Safety and effectiveness of long-term treatment with lurasidone in children and adolescents with bipolar depression: A 6-month interim analysis of a 2-year open-label extension study

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Introduction.– Lurasidone has demonstrated efficacy and safety in the short-term treatment of bipolar depression in children and adolescents.

Objective.– To evaluate the long-term safety and effectiveness of lurasidone in children and adolescents with bipolar depression.

Methods.– Patients aged 10–17 years with bipolar I depression who completed 6 weeks of double-blind (DB), placebo (Pbo)-controlled treatment with flexibly-dosed lurasidone (Lur) (18.5–74 mg/d) were enrolled in a 2-year, open-label (OL) study in which patients continued on (or switched to) lurasidone. We present results of

an interim analysis at Week 28. Efficacy was assessed using the Children's Depression Rating Scale, Revised (CDRS-R).

Result.– Overall, 347 patients were randomized to lurasidone or placebo. At Week 6, significant improvement was observed for lurasidone vs. placebo in CDRS-R total score (-21.0 vs. -15.3; $P < 0.0001$). 223 patients entered the open-label (OL) study, and 155 (69.5%) completed 28 weeks of treatment; 0.9% discontinued prior to Week 28 due to lack of efficacy; 8.1% discontinued due to an adverse event. For the combined lurasidone group ($n = 223$), mean change in CDRS-R total score, from OL baseline was -10.0 at Week 52 (observed case analysis), and -7.7 (LOCF-endpoint). During OL treatment, the 3 most common adverse events in the combined lurasidone group were headache (19.7%), nausea (14.3%), and anxiety (9.9%). Minimal effects were observed on weight, metabolic parameters, and prolactin levels.

Conclusion.– In children and adolescents with bipolar depression, long-term treatment with lurasidone was safe and generally well-tolerated, and was associated with continued improvement in depressive symptoms.

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Drs. Goldman, Tocco, Pikalov, Deng, Cucchiaro, and Loebel are employees of Sunovion Pharmaceuticals Inc.

OR0029

Influence of family group psycho-education on relapse rate and duration of hospitalization in patients with bipolar disorder type I

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Keywords: Bipolar disorder, Family group psycho-education

Introduction.– Bipolar disorder is disabling because of frequent recurrences. Besides pharmacotherapy, psycho-education can be helpful in reducing patients' symptoms and recurrences of disorder, leading to improvement of their quality of life.

Objectives.– In this study we considered the influence of family group psycho-education on relapse rate, duration of hospitalization and quality of life in patients with bipolar disorder.

Method.– This randomized controlled clinical trial has been done on 64 patients with bipolar disorder hospitalized in psychiatry ward who were allocated into 2 groups. Patients in the control group received the usual treatment. Family of the patients in intervention group were received 4 sessions of group psycho-education. The patients were evaluated with Hamilton Depression Rating Scale, Young Mania Rating Scale and Quality of life Mc Master questionnaire. Patients were reexamined after 9 months follow up for recurrence and hospitalization rate.

Results.– Data analysis showed a significant reduction in the number of hospitalization days in the group was received family psycho-education, in patients with mixed and mania period, but not in recurrence rates. The effect of training on the number of hospitalization days dependent on the level of education of the recipient's, patient's location, duration of illness and number of hospitalizations before starting research. All quality of life subscales were influenced.

Conclusion.– Family group psycho-education for patients with Bipolar disorder can improve their quality of life and diminished the risk of disorder recurrence.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

Oral communications 03: Child and adolescent psychiatry/comorbidity/dual pathologies/consultation liaison psychiatry and psychosomatics

OR0030

Serum levels of IGF-I in delirious and non-delirious acutely Ill older medical inpatients

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Introduction.– Delirium is a common disorder in elderly medical inpatients with serious adverse outcomes. The issue of the association of low levels of Insulin like Growth Factor I (IGF-I) and delirium still remains controversial.

Objectives.– To investigate the relation of serum levels of (IGF-I) and the occurrence of delirium.

Methods.– Prospective, longitudinal, observational study. Consecutive elderly inpatients (aged 70 +), were assessed twice weekly with Montreal Cognitive Assessment (MoCA), Confusion Assessment method (CAM), Acute Physiology and Chronic Health Evaluation II (APACHE-II). Delirium has been define with CAM. Previous history of dementia was evaluated with the Informant Questionnaire on Cognitive Decline in the Elderly (IQCODE). IGF-I levels were estimated with ELISA method.

Results.– The sample consisted of 198 participants (mean age 80.63; *SD*: 6.81; range: 70–97). Of these 92 (46.5%) were females. Eighty-six (43.4%) were identified with a history of dementia. Incident or prevalence delirium has been identified with CAM in 40 participants (20.2%). Using Generalized Linear Model for the analysis of the longitudinal data it was found that low MoCA scores and low levels of IGF-I were significant associated with any delirium during hospitalisation (Wald $\chi^2 = 29.62$; df:1, $P < 0.001$ and Wald $\chi^2 = 7.235$, df:1, $P = 0.007$ respectively).

Conclusions.– The results shows that low levels of IGF-I are independently associated with the occurrence of any delirium (incident or prevalent) during the hospitalisation of medically ill older people.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0031

Prevalence of depressive symptoms among victims of sexual abuse: Cross sectional study from Oman

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Background.– Child sexual abuse is a form of child abuse in which an adult or older adolescent uses a child for sexual stimulation. There is a dearth of such studies in Oman and Arab world.

Objectives.– The current study aimed to measure the prevalence of depressive symptoms among sexually abused children attending tertiary care child and adolescent mental health department in Muscat.

Methods.– A cross-sectional analytical study was conducted among all sexually reported cases attending tertiary care child and adolescent mental health department in Muscat.

This data was collected by reviewing the medical records and interviewing the patients as semi structural interview for DSM5 EPA 2013. The Depression Scale for Children was utilized to assess depressive symptomatology. A binary logistic regression model was used to decipher the adjusted and unadjusted odds ratios (ORs).

Results.– Total of 33 cases of child sexual abuse were participated in the study, with response rate of 89%. The prevalence of depression symptoms was 63%. Logistic regression analysis indicated that frequency of the abuse, female gender and frequent and repeated sexual act abuse were significant predictors of depression multivariate analysis ($OR = 5.000$, 95% confidence interval [CI]: 1.084–23.0613, $P = 0.003$; $OR = 8.5000$, 95% CI: 1.6808–42.985, $P = 0.0097$; respectively).

Conclusion.– This study showed that depressive symptoms are common among sexually abused children in Oman. Therefore, detecting and promptly treating depression in this vulnerable population is pivotal to optimize their psychological well-being and prognosis of their future life.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0032
Risk and type of new onset seizures in patient with/without dementia

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Risks of new onset seizures (NOS) and types associated to dementia are estimated. A cohort of 2,885,336 patients with/without dementia and 60 years or more from the Optum Insight Clinformatics-data Mart database was followed from 2005 to 2014. Group differences were analyzed using continuity-adjusted chi-square and hazard ratios with 95% confidence intervals (CI) calculated after logistic regression analysis. Two point seventy–six percent of patients ($n = 79,561$) had a dementia diagnosis with 56% of them women. Dementia patients have 6.5 times increased risk for undifferentiated seizures (95% CI 4.4–9.5), a 6 fold elevated risk for partial seizures (95% CI 5.5–6.6), 5.2 times higher risk for generalized epilepsy (95% CI 4.9–5.5) and undifferentiated epilepsy (95% CI 4.8–5.2). And, 4.75 increased risk for generalized seizures (95% CI 4.5–5.0) and partial epilepsy (95% CI 4.4–5.1). In conclusion patients of 60 years of age or older have higher risks of NOS associated with a dementia diagnosis.

Disclosure of interest.– Ruby Castilla-Puentes is full-time employee of Johnson & Johnson

OR0033
Opioid maintenance therapy in subjects receiving antipsychotic for schizophrenia

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Introduction.– Schizophrenia is associated with high rates of abuse or dependence of nicotine, cannabis, alcohol, or cocaine. Very few studies assessed the frequency of opioid use disorders in subjects with schizophrenia. Moreover, to our knowledge, there is no study investigating the frequency of subjects receiving opioid maintenance therapy among patients receiving antipsychotic medications.

Objectives.– To assess the frequency of subjects receiving opioid maintenance therapy in patients receiving antipsychotic medications.

Methods.– A data set from National Information System of French healthcare Social Security which covers 97% of the French population was matched with the public and private hospitals inpatients and outpatients diagnosis data system, using the social security number which all French citizen affiliated to the French Health System have. All subjects from Hauts-de-France area, North France, receiving opioid maintenance therapy, i.e methadone, buprenorphine, or buprenorphine/naloxone, and antipsychotics prescribed by any Medical Doctor (e.g., hospital physicians, general practitioners, psychiatrists...) in patients with ICD-10 diagnoses of schizophrenia, schizotypal disorders, delusional disorders, brief psychotic disorders, substance/medication-induced psychotic disorders, schizoaffective disorders, and other schizophrenia spectrum disorders in 2015, were included in the study.

Results.– The analysis of the data sets showed that among the subjects with ICD-10 diagnoses of schizophrenia spectrum included in the study and receiving antipsychotic medications ($n = 20473$, 0.4% of the general population), 2.6% received methadone or buprenorphine ($n = 532$).

Conclusions.– The rates of patients with schizophrenia spectrum receiving opioid maintenance therapy was not uncommon, more frequent than the rate of subjects receiving opioid maintenance therapy in the general population (0.70%).

Disclosure of interest.– A. Dervaux has received honoraria for lectures from AstraZeneca, Lunbeck, Lilly, and Otsuka.

O. Cottencin honoraria for lectures from, Indivior, Lundbeck, Janssen-Cilag, and honoraria for research from Lundbeck, Ethypharm

OR0034
Adolescent early birds vs night owls: Chronotype and the psychological health of youth

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Objective.– Recent evidence suggests that preference in the timing of sleep, or chronotype, relates to adolescent psychological health. The hypothesis is that night owls struggle more than early birds

because they get less sleep, in part due to early school start times. Yet few studies have adjusted for sleep duration and none controlled for school start time. We examined the association between chronotype and indicators of youth psychological health, controlling for sleep duration and school start time.

Methods.– Data were collected in the 2014 Canadian Health Behaviour in School-Aged Children survey (29,635 students; ages 10–18). Chronotype was estimated using the mid-cycle sleep time on weekends, corrected for catch-up sleep. We examined scores for emotional problems (range: 0–33), emotional well-being (0–22), behavioral problems (0–28) and prosocial behaviours (0–25). We analyzed data using school random-effects regressions, adjusted for sleep duration, school start time, individual and family characteristics, rurality, season, latitude, and province.

Results.– The average mid-sleep time (chronotype) was 4:21 a.m. A later chronotype was associated with worse psychological health scores. Each hour delay in mid-sleep was associated with 0.4 (95% CI 0.3, 0.5) higher point score on emotional problems and 0.2 (95% CI 0.1, 0.3) on behavioral problems and 0.2 (95% CI 0.1, 0.3) lower point score on emotional well-being and 0.3 (95% CI 0.2, 0.4) on prosocial behaviors.

Conclusion.– The circadian typology of adolescents relates to indicators of psychological health even after adjusting for sleep duration and school start time. Studies are needed to further clarify the mechanism underlying this association.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0035

Changes in hormones, melatonin and cortisol, related to the psychological and sleep states of high school students

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Objectives.– We investigated the actual condition of the depressive mood and sleep disturbances of high school students. In addition, we made a study on the correlation of cortisol and melatonin hormone concentration to their depression and sleep disturbances.

Methods.– We used a questionnaire with Zung depression scale and Pittsburgh sleep index score. Melatonin and cortisol concentration in saliva sampled at 7 am and 11 pm were measured by ELISA and statistical analysis was performed with SPSS 21.

Results.– According to the survey of 39 first-year and second-year high school students, there were 38.5% of the students with a depressive mood and 69.2% of students with sleep disturbance. Sleep-disturbances students suffered from depressive moods more than normal-sleep student and depressive-mood students showed a significant increase in cortisol at 7 am. In addition, students with depressive moods and students with sleep disturbances have showed a significant increase in melatonin at 11 pm. There was no grade-specific difference.

Conclusion.– In conclusion, Korean high school students frequently suffer from depressive moods and sleep disturbances, and these students also showed changes in the concentration of related hormones, cortisol and melatonin. In particular, students with depressive moods experience a "phase delayed" phenomenon in which their normal circadian rhythms are delayed. This suggests that high school students' psychological and sleep disturbances

may also affect hormones in their bodies. Therefore, it is necessary to take measures to reduce psychological and sleep disturbances.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0036

Cognitive function and home-environmental outcomes in perinatally acquired HIV-positive pre-and-school age children on cART in South Africa

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Introductions.– Studies from developed countries have been able to demonstrate that neurocognitive impairments among HIV+ children is common and can occur as early as infancy.

Objectives.– For this very reason, neurocognitive outcome among HIV+ children from developing countries should be considered as an essential aspect of paediatric HIV management.

Methods.– The Wechsler Preschool and Primary Scale of Intelligence-III was administered to assess the neurocognitive functioning of 152 perinatally HIV-infected children on cART, aged 3 years to 7 years 6 months (mean age: 63.13 months). The primary caregivers ($n = 152$) completed the Home Screening Questionnaire to assess the quality of home- environment of the children.

Results.– The results provide evidence that the quality of the home-environment deferentially impacts neurocognitive development of children despite being on cART. A large percentage of (> 70%) of the children presented with subnormal global neurocognitive functioning (FSIQ) ($M = 81.47$, $SD = 12.81$). Older HIV+ boys and girls who lived in a suboptimal and poor quality home-environment were worse off neurocognitively when compared to younger boys and girls, F (2,149) = 14.42, $P < 0.001$. Verbal neurocognitive development had a negative association ($r = -0.18$, $P < 0.05$) with poor quality home-environment.

Conclusions.– The results highlights that it is not enough to focus attention on the medical management of paediatric HIV patients. HIV+ children are vulnerable to developing neurocognitive deficits that can impact negatively on their ability to thrive academically and adhere to their treatment. The need for a psychosocial intervention to improve overall health and future quality of life of this population is recommended.

Disclosure of interest.– The author has not supplied a conflict of interest statement.

OR0037

Suicide attempts in bipolar disorder: Risk factors in a cohort of 220 patients

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Introduction.– In bipolar disorder (BD), a significant proportion of elevated mortality is attributable to suicide. Indeed, in BD, lifetime suicide attempts (SA) are estimated to range, from 25% to 50%. Suicidal behaviour is a complex phenotype now recognized by DSM-5 as an independent crosscutting clinical entity.

Objectives.– We wanted to investigate risk factors for attempted suicide in bipolar patients.

Method.– We undertook a retrospective study including a sample of BD type I out-patients. The inclusion criteria were: patients hospitalized between January 1 2000 and December 31 2015 and at least two years' follow.

This study examined factors putatively associated with SA in BD. Factors were subcategorized into: sociodemographics, clinical characteristics of bipolar disorder and comorbidities,

Results.– A total of 220 adult bipolar out-patients were recruited and 48% of them had a personal history of SA. The proportion of attempted suicide was higher in women than in men (60%).

This sample of suicid attempers was chacarcterized by low socio economic status, family conflicts and poor social integration.

Early onset of bipolar disorer, traumatic life events notably childhood trauma ($P < 0.002$), family history of affective disorder ($P < 0.004$) and family history of SA ($P < 0.0018$) were significately associated to SA in the two genders.

Comorbid substance use disorder was a predictor of SA in men ($P < 0.002$), while comorbid personality disorder predicted SA in women ($P < 0.004$).

In both genders anxiety disorder, eating disorder, somatic disorder did not predict SA.

Conclusion.– These risk factors may be signs of a clinical subgroup at risk of suicidal behaviour, and seem to be important for suicide risk assessment in acutely admitted BD patients.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0038

Guanfacine for autism spectrum disorder: Use in an outpatient unit

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Introduction.– Autism spectrum disorders (ASD) are frequently marked by symptoms consistent with attention-deficit/hyperactivity disorder (ADHD), namely inattention, hyperactivity and impulsivity. Individuals with co-occurring ASD and ADHD symptoms are more severely impaired, with significant deficits seen in social processing, adaptive functioning, and executive control.

Aim of the study.– Sometimes, hyperactivity, impulsiveness, and distractibility are common problems in children with ASD. Guanfacine is approved for children with attention-deficit/hyperactivity disorder but not well studied in ASD.

Method.– The study subjects were recruited from an outpatient programme that treats children with Developmental Disorders. Subjects scored 15 points or higher on the Conners Index. Twenty children were studied in order to diagnose ASD, and if it was necessary due to lack of response to specific hyperactivity symptoms and/or adverse side effects, their medication was changed.

Results.– Twenty subjects (boys: $n = 18$, girls: $n = 2$; age range = 7.8 years), their medication was changed to Guanfacine and the patients were re-evaluated a month after. It was observed that the patients showed improvement in the hyperactivity symptoms compared to when they were medicated with psychostimulants. The modal dose of guanfacine at week 4 was 3 mg/day (range: 1–4 mg/day).

Conclusions.– There is good evidence suggesting that as many as 50% of children with ASD exhibit significant co-occurring ADHD symptoms. Careful evaluation for the potential presence of ADHD symptoms is warranted for all individuals with ASD. Extended-release Guanfacine appears to be safe and effective in reducing hyperactivity, impulsiveness, and distractibility in children with ASD.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0039

Life trajectories of adverse experience: Tracing the paths to suicide

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Introduction.– According to the most recent causal models of suicide, distal (early) adverse life events influence the probability of engaging in suicidal behaviors by altering vulnerability to stressors, while proximal (late) adversity is seen as a cumulative trigger for the suicide. However, real-life developmental sequences are not that clear-cut, and empirical evidence is still lacking about how adverse experiences dynamically affect suicidal trajectories over time.

Objectives.– Identify and describe the types of life trajectories of individuals who died by suicide based on the burden of adversity they experienced.

Methods.– Psychological autopsies and life trajectory interviews were used to collect extensive adverse events calendars for 393 individuals who died from suicide. Data were analyzed by a panel of experts with a clinical narrative approach to derive an overall burden of adversity rating for every 5-year interval. Growth mixture models (GMM) allowed for identifying typical patterns of burden trajectories. Fittings were compared to determine the number and shape of trajectory patterns that best explained the data.

Results.– The most accurate GMM derived 4 trajectory patterns from the individual evolutions of burden throughout life, but also from the ages of death. In the two first trajectories, individuals died earlier. Either starting from low or intermediate burden, they both grew to high scores at the age of death. The 2 "late-death" curves slowly increased or decreased to finally converge to a low level of burden.

Conclusions.– Profiling the types of adverse trajectories to suicide could guide more targeted prevention strategies.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0040

A prospective longitudinal investigation of the (dis)continuity of mental health difficulties between mid- to late- childhood and the predictive role of familial factors

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Objective.– Understanding individual variation in the continuity of youth mental health difficulties is critical for identifying the factors that promote recovery or chronicity. This study establishes the proportion of children showing psychopathology at 9 years, whose pathology had either remitted or persisted at 13. It describes the sociodemographic and clinical profiles of these groups, and investi-

gates the factors in 9-year-olds' familial environments that predict psychopathological remission vs. persistence.

Method.– The study utilised data from a prospective longitudinal study of 8568 Irish children. Child psychopathology was assessed using the Strengths and Difficulties Questionnaire (SDQ). Analysis established the rates of continuity of SDQ classifications between 9–13 years. Analysis also investigated the familial factors that predicted the remission vs. persistence of psychopathological symptoms, controlling for socio-demographic and child factors.

Results.– Average SDQ scores improved between the ages of 9 and 13, $F(1.7292) = 276.524$, $P = .037$. Of children classified abnormal aged 9, 41.1% remained so classified at 13, 21.4% were reclassified borderline, and 37.6% normal. Demographic and child risk factors for persistence of pathology were maleness ($b = -1.00$, $P = .001$, CI $= .20–.67$), one-carer households ($b = -.71$, $P = .041$, CI $= .25–.97$), poor physical health ($b = -.64$, $P = .025$, CI $= .30–.92$), and low cognitive ability ($b = .61$, $P = .002$, CI $= 1.26–2.70$). Controlling for these factors, the only familial variable at 9 years that predicted subsequent pathological persistence was caregiver depression ($b = -.07$, $P = .027$, CI $= .87–.99$).

Conclusion.– The analysis highlights substantial rates of psychopathological discontinuity in a community sample and identifies the children most at risk of chronic mental health problems. These results will inform the targeting of early interventions and distribution of clinical resources.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0041
Depression and anxiety as factors of cognitive disorders in patients with essential hypertension

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Introduction.– The diagnostic of contribution of emotional factors in cognitive impairment in patients with essential hypertension (EH) is often necessary for choosing the treatment strategy.

Objectives.– To assess cognitive functions in patients with EAH and evaluate the connection of the revealed cognitive disorders with the presence of anxiety and depression.

Methods.– The study has involved 39 naive middle-age patients with uncomplicated EAH, stage 1–2, average age is 51.9 ± 6.5 and 49 normotensive persons, average age is 47.9 ± 6.2. The following methods were used: Trail Making test, MoCA test, Verbal fluency test, Stroop test, CERAD 10-word list, Pictogram test, Hamilton Depression Rating Scale and Hamilton Anxiety Rating Scale.

Results.– EH patients significantly differ from healthy persons by the following parameters: MoCA (28.17 ± 1.7 vs 29.06 ± 1.1; $P = 0.029$); letter fluency (10.56 ± 3.5 vs 13.53 ± 3.3; $P = 0.003$);

Stroop 2 (69.3 ± 9.0 vs 62.4 ± 13.6; $P = 0.016$); Stroop 3 (128.2 ± 45.6 vs 114.4 ± 30.6; $P = 0.043$); anxiety level (3.22 ± 4.1 vs 0.59 ± 1.3; $P = 0.01$) and depression level (1.94 ± 3.7 vs 0.22 ± 0.8; $P = 0.009$). Pictogram test has revealed the predominance of concrete images over symbolically generalized for EH patients (1.9 ± 1.4 vs 0.9 ± 0.9; $P = 0.04$); decreasing quantity of the accurately recalled words (7.7 ± 2.1 vs 9.7 ± 2.4; $P = 0.006$), and essential quantity of not recalled words (5.4 ± 2.3 vs 2.9 ± 1.7; $P = 0.001$).

Correlation analysis has revealed the presence of negative correlations between depression level and such parameters of cognitive functioning as MoCA score (-0.61; $P \leq 0.05$); letter fluency (-0.53; $P \leq 0.05$); immediate recall in CERAD 10-word list (-0.5; $P \leq 0.05$).

Conclusion.– The obtained results prove the connection of the cognitive impairments revealed for AH patients with marked anxiety and depression.

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Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0042
Outcome measures for autism spectrum disorders: A systematic review

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Introduction.– Clinical trials for autism spectrum disorders (ASD) are constantly increasing. However, no consensus has been reached about which outcome measures should be preferred, especially when assessing core symptoms.

Objectives.– First, we systematically reviewed published trials for ASD, analyzing their outcome measures. Second, we examined the relationship between outcome measures, type of intervention, study design, and characteristics of samples (age and IQ).

Methods.– We conducted a systematic search to identify any published controlled trial investigating the efficacy of interventions in patients with ASD. The Web of Knowledge[SM] database was searched between 1980 and 2016, including abstracts in English only. Reference lists of relevant reviews on the topic were hand-searched for inclusiveness.

Results.– A total of 406 trials were included in the final database (354 RCTs and 52 non-randomized trials), with approximatively 17240 participants involved. A total of 327 outcome measures were identified; only 8 of them were used in more than 10% of the studies. Of note, 31% of the studies used at least one ad-hoc measure, and 9% studies used ad-hoc scales only. Figure 1 illustrates the relationship between the most commonly used scales and studies characteristics.

Conclusions.– Evaluation of outcomes in trials for ASD is heterogeneous, often relying on non-specific tools for this condition. More consensus should be reached on the choice of these measures, especially when core symptoms are assessed.

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	Core symptoms			Adaptive behavior	Problem behavior		Clinical impression	
	ADOS	CARS	SRS	VABS	ABC	CRS	CGI-I	CGI-S
Age group	0.103	0.919	0.584	**0.046**	0.121	0.582	0.331	0.1
IQ group	**0.002**	0.08	**0.004**	0.008	<0.001	0.001	0.064	**0.038**
Only with ID								*2.4*
Only without ID	*-2*				*-2.6*	*-2.4*		
With and without ID	*2*				*3.1*	*2.3*		
Type of intervention	0.073	<0.001	0.497	0.005	<0.001	<0.001	<0.001	<0.001
Pharmacological					*6.5*	*3.6*	*5.4*	*3.6*
Nutraceutical		*3.6*			*2.1*			
Psychotherapy					*-2.7*			
Educational		*-2.3*		*2.9*	*-5.5*	*-3.1*	*-4.4*	*-3.2*
Miscellaneous							*-2.2*	
Lenght of follow-up	0.002	0.457	0.766	<0.001	<0.001	0.026	0.02	0.172
≤ 12 week	*-2*			*-3.6*	*2.8*			
> 12 weeks	*2.5*			*4.7*	*-3.7*			
Study design	0.158	0.598	**0.016**	<0.001	<0.001	0.036	0.005	0.005
Randomized								
Non-randomized			*-2*	*4.1*	*-2.7*		*-2.3*	*-2.3*

Legend: **bold**: Significant Fisher's test p value; *italic*: significant standardized residuals for studies using the tool. ABC, Aberrant Behavior Checklist; ADOS, Autism Diagnostic Observation Schedule; CARS, Childhood Autism Rating Scale; CGI, Clinical Global Impression (I, improvement, S, severity); CRS, Conners's Rating Scales; SRS, ID, Intellectual Disability; IQ, Intelligence Quotient; Social Responsiveness Scale; VABS, Vineland Adaptive Behavior Scale;

Fig. 1

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0043

Psychiatric comorbidity and medication usage in adult autism spectrum disorder (ASD): Results from the Ncmh adult Asd cohort

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Background.– Autism spectrum disorders (ASD) are lifelong neurodevelopmental conditions, with increasing rates of adult diagnosis. This study investigates the prevalence of comorbid mental health disorders and psychotropic medication usage in a clinically ascertained cohort of individuals diagnosed with ASD as adults.

Methods.– Clinical psychiatric data for individuals with ASD was accessed from the National Centre for Mental Health (NCMH) case database. Inclusion criteria were diagnosis of ASD at age ≥ 18 consistent with ICD10 Diagnostic Criteria made by a trained secondary health care professional.

Results.– A total of 105 individuals with ASD diagnosed as adults were age and sex matched with a cohort of 76 control individuals. 80 individuals (76%) with adult diagnosed ASD were men, matched to 55 (72.4%) of the controls. The average age of those with ASD was 37.81 years, 40.70 years for the controls.

Ninety-four (89.5%) of the ASD cohort self-reported a comorbid psychiatric diagnosis, with Depression (62.9%) and Anxiety (55.2%) the most common. Dyslexia (21.9%), Dyspraxia (18.1%) and ADHD (19.0%) were also prevalent. The percentage of individual who reported OCD was 17.1 and 11.4% previous psychosis. The most significant lifetime psychotropic usage was of antidepressants, reported by 78.7% of those who responded, with short-term anxiolytic (31.2%) and hypnotic (19.1%) usage also over-represented.

Discussion.– Individuals diagnosed with ASD as adults have a high prevalence of comorbid anxiety and depression, alongside anticipated ADHD, dyslexia and dyspraxia. Lifetime antidepressant prescription was correspondingly high, with commensurate usage of short-term anxiolytics and hypnotics. These findings demonstrate the importance of screening for depression and anxiety in adults with ASD.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0044

The effects of adverse childhood experience and social support on self-injury behaviours in adolescents: Is there any gender difference?

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Background.– There are less investigation on the effects of adverse childhood experience (ACEs) and social support (SS) on self-injury behaviours in adolescents, and gender differences in the effects.

Objects.– To examine the associations of ACEs and SS with self-injury behaviours in schoolgirls and boys in China, and gender differences in the associations.

Method.– We conducted a school-based health survey in 3 provinces in China in 2013–2014. Overall, 14,820 students aged 11–19 years completed standard questionnaires, to record the details of ACEs and SS, and over one year's non-suicidal self-injury behaviour (NSSI), suicide ideation (SI) and suicide attempt (SA).

Results.– The percentage of participants who had ≥ 1 ACEs was 89.4. The prevalence of NSSI, SI and SA was 26.1%, 17.5% and 4.4% respectively. They were significantly associated with increased ACEs and reduced social support. In adolescents with low SS, girls had a higher risk of NSSI than boys (adjusted *OR* 1.35, *P* = 0.007). In adolescents with high ACEs score (5–6) and moderate or low SS, girls verse boys had around two times higher to have SA (corresponding ORs were 2.11, 1.86 and 1.99, respectively; *P* < 0.05). No gender differences were found within other groups in the associations of NSSI, SI and SA with ACEs and SS.

Conclusions.– ACEs and less SS increased the risk of self-injury behaviours in adolescents. While both girls and boys had similar effects from ACEs and SS, we should target high-risk groups of NSSI, SI and SA for gender differences accordingly.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

Oral communications 04: Cultural psychiatry/posttraumatic stress disorder/epidemiology and social psychiatry/intellectual disability/oncology and psychiatry

OR0045
Importance of an early EMDR intervention in emergency room to prevent post-traumatic stress disorder and concussion-like persistent symptoms: A pilot randomized controlled study

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Background.– Up to 20% of patients presenting at an Emergency Room (ER) after a stressful event will suffer durably of various very diverse long-lasting symptoms (headaches, memory problems, personality changes etc., with a potentially significant decline in quality of life. These symptoms can be grouped under the term Post-Concussion-Like Symptoms (PCLS). This procession of symptoms, initially described in traumatized brain, is also found in patients with all types of trauma.

The results of a recent study of injured patients suggest that there is a strong correlation between symptoms of PCLS and symptoms of post-traumatic stress disorder (PTSD), and that stress plays a major role.

Objectives.– Assess the feasibility of EMDR in ER and compare the effectiveness of an early single EMDR intervention after stressful event, to reassurance or usual care.

Method.– This monocentric randomized, controlled open-label study was conducted in the ER of Bordeaux University Hospital. It included patients with a high risk for PCLS or PTSD randomized in three groups: a reassurance session, a session of EMDR, and usual care.

Results.– At 3-month recall, the rate of patients with PTSD was 3% in the EMDR group versus 16% and 19% in the reassurance and control groups. The PCLS rate was 15% in the EMDR group versus 47% and 65% in the reassurance and control groups.

Conclusion.– This is the first randomized, controlled trial that shows that a single EMDR intervention is both feasible and effective to prevent PTSD and PCLS

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0046
Effects of bilateral alternated stimulation on memory of emotional and neutral content

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Making repetitive saccadic eye movements has been found to increase subsequent episodic memory retrieval and also to increase subsequent top-down attentional control. We tested this idea by examining the effect of saccade execution on retrieval conditions that differed in emotional content. In this study, we assessed the effects of Bilateral Alternating Stimulation (BAS) typically used in EMDR (Eye Movement desensitization and reprocessing) therapy and emotional priming on face recognition. Twenty-five adults performed two similar face-recognition tasks. During study phase, participants either saw happy faces primed with neutral scenes or happy faces primed with traumatic scenes (IAPS database) that they later had to remember. Immediately after study and before recognition, participants carried out the same three short series of saccade execution or a fixation task: visual BAS (horizontal saccadic bilateral alternating eye movements) during one session and a visual fixation control task during the other one. Our results confirm that engaging in BAS enhances recognition. To date, this is the first research studying the effect of BAS on recognition processes. Moreover, it is the first to use an Old/New recognition paradigm and an estimation of response certainty of participants but also to study, at an electrophysiological level, the effect of BAS on evoked potentials associated with recognition. Our results confirm the beneficial effect of BAS on recognition performance and may have important implication on understanding the mecanisms at stake in EMDR treatment with PTSD patients.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0047
Empathy in Bosnian war veterans with and without posttraumatic stress disorder

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Introduction.– It is little known how critical life events, such as traumatic experiences, affect empathy. There is a belief that victims of extreme violence should be more vulnerable to the suffering of others. Psychosocial literature claim opposite. Being a victim of collective violence often inhibits empathy towards others. Studies on relationship of empathy and posttraumatic stress disorder (PTSD) are rare. Their findings are still pretty inconclusive.

Objectives.– To evaluate empathy in war veterans with and without symptoms of post-traumatic stress disorder.

Methods.– The research is a cross-sectional study conducted between March and July 2015 in a group of 205 war veterans, of whom 104 war veterans were with symptoms of post-traumatic stress disorder and 101 without PTSD symptoms. The study used the Harvard Trauma Questionnaire (HTQ), the Toronto Empathy Questionnaire (TEQ) and the questionnaire on sociobiographical data.

Results.– The average score on the Toronto empathy questionnaire for the overall sample of respondents was 33.39 ± 7.68, which indicates a moderate level of empathy in relation to the total score of the score (0–64). The difference [$F (1, 205) = 11.799$, $P = 0.001$] was significant in the mean values of the total empathy score between war veterans with (35.18 ± 7.15) and without PTSD symptoms (31.53 ± 7.81).

Conclusion.– Bosian war veterans with symptoms of PTSD have higher total score of empathic response.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0048

Suicidality factors in alcoholics among indigenous population of Far North

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Keywords: Factors of suicidal behavior, Index of suicidality, Mental and substance use disorders, Ethnicity, The Narym Selkups

Introduction.– Suicidal death rate among drug addicts is 7–15% and in alcoholics is similar to the patients with depression (11–15%).
Objectives.– To identify cause-effect interrelationships between suicidal behaviour, sociodemographic and psychological factors among Far North Siberian population.
Methods.– We registered all cases of death: medical death certificates for 5-year period 2008–2013 ($n = 1501$), materials of exemption to institute criminal proceedings in connection with ascertainment of fact of suicide ($n = 117$), acts of postmortem forensic medical examination ($n = 104$). As analytical tool indexes of suicidality were used.
Results.– The suicidality index was 94.4 points. Number of completed suicides exceeded number of cases of attempted suicides. Fatal suicides were characterised by self-evocation, for non-fatal suicides - self-cuts, to the same extent for men and women; poisoning by chemicals was more attractive among women (28.9% of cases) and less typical for men (6.3% of cases). With fatal suicides, the share of gunshot wounds was high. In 52.1% suicide was committed in alcohol abuse. A "double" psychiatric diagnosis was found in 10.9% of cases in male suicides (4.0% – a combination of alcoholism with personality disorder, in 6.9% – mental retardation with alcoholism). Among suiciders there was a high specific weight of the Selkups–persons of the indigenous ethnicity (10.3%).
Conclusion.– Suicidality index among Far North Siberian population exceeded 90 points. The most significant predictors of suicidal behaviour were mental and substance use disorders, ethnicity, family history, loneliness.
Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0049

Genetic epidemiolgy of chronic psychiatric disorder in Caribbean Island: A pilot study

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Introduction.– Schizophrenia spectrum (SSD), bipolar (BD) and Pervasive developmental disorders (PDD) are chronic psychiatric conditions with high heritability (> 70%). A current challenge is to identify rare genetic variants at risk for these disorders in non-European populations. Our study aimed to estimate the interest and feasibility of a genetic study in an insular Caribbean population.
Methods.– We assessed first and second degree familial history of psychiatric disorder of 2889 patients aged over 16 living in North islands of Guadeloupe. Diagnosis of patients and relatives were surveyed upon healthcare professionals and medical records.

Results.– A total of 172 multiplex families were identified in these islands. Twenty percent, 10% and 11% of respectively PDD, SSD and BD's patients had first or second degree familial history of psychiatric disorders. SSD, but also BD and PDD patients' relatives suffered mainly from SSD (65%, 67% and 72% respectively).
Discussion.– In the literature, 20% to 30% of patients suffering from SSD had familial history of psychiatric disorder. Though our small percentage of 10% may be due to methodological bias, we interrogated the importance of environmental factors. Besides, the high rate of SSD in our cohort raised the possibility of a diagnostic bias from BD to SSD. Such a bias was already described in Afro-American and Caribbean populations, raising the hypothesis of a particular expression of SSD-BD continuum in non European populations.
Conclusion.– This study provides key elements towards the interest and feasibility of a genetic study of chronic severe psychiatric conditions in the West Indies.
Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0050

Burnout in medical students before residency: Systematic review and meta-analysis

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Introduction.– Applying concept of burnout to medical students before residency is relatively recent and the estimated prevalence varies significantly between studies.
Objectives.– The objective of this study was to estimate the prevalence of burnout in medical students worldwide.
Methods.– We did a systematic research on Medline, restricted to English language. All original studies on prevalence of burnout in medical students before residency published between 1st January 2010 and 30th September 2017 were selected. Information on studies characteristics were extracted independently by two investigators. Prevalence of burnout was extracted if it was assessed by validated questionnaires. Statistical analyses were made using the OpenMetaAnalyst software.
Results.– Prevalence of burnout was extracted from 23 studies including 16,769 medical students. Among them, 8011 were suffering from burnout and we estimated the prevalence to be 45.8% [35.8%; 55.8%]. The information about the prevalence of each subset of symptoms was given in eight studies including 6926 students. The prevalence of emotional exhaustion subset was estimated to be 42.2% [33.6–50.9%], the prevalence of depersonalization to be 25.8% [15.2–36.3%] and the prevalence of personal accomplishment to be 21.2% [10.2–32.1%].
Conclusions.– The results of this meta-analysis are alarming with one student in two suffering from burnout, even before the residency. However, if data on prevalence needs to be cautiously discussed, nonetheless it should encourage the development of preventive strategies.
Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0051

Adults with intellectual disabilities in China: Co-morbid psychiatric disorder and its association with health service utilization

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Introduction.– Adults with intellectual disabilities often have multiple co-morbid disorders. Psychiatric disorders in this population have been poorly studied in developing countries.

Objectives.– We aimed to investigate the prevalence of psychiatric disorders in adults with intellectual disabilities (ID) and whether co-morbid psychiatric disorders were associated with health service utilization.

Methods.– We obtained data from the Second National Sample Survey on Disability, conducted in 31 provinces in China, and selected a sub-sample of 13,631 adults aged 18 years and above with intellectual disabilities. ID were defined by intelligence quotient (IQ) score under 70, deficits in two or more in adaptive behaviors, and age of onset under 18. Psychiatric disorders were identified according to the International Statistical Classification of Diseases, Tenth Revision (ICD-10). Logistic regressions were used for data analyses.

Results.– The prevalence of psychiatric disorders in adults with ID was 16.7%. The most prevalent type of psychiatric disorder was dementia. Older adults, females, being minorities, urban residents, being literate, low-income groups, and having severe ID, were associated with elevated risk of psychiatric disorder among adults with ID. Compared with individuals without psychiatric disorders, those with co-morbid psychiatric disorders were more likely (*OR*: 2.14, 95%CI: 1.94, 2.36) to use medical services and less likely (*OR*: 0.70, 95%CI: 0.59, 0.84) to use rehabilitation services.

Conclusions.– This study informs that further longitudinal studies are needed and has implications for the role of social factors in the ecologic studies of psychiatric disorders in population with ID.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0052

Improving child and women's mental health among ultra-poor families: Two-year results of a cluster-randomized trial in West Africa

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Objective.–Behavioral interventions alone may be insufficient for improving mental health in low-income countries. This study tests the effects of economic intervention, alone and in combination with a family-focused component, on the mental health of children and women living in ultra-level poverty.

Methods.– Funded by the Network of European Foundations, this three-arm cluster-RCT included 10–15 year-old children and women from 360 ultra-poor households from twelve villages in Burkina Faso. Villages were randomized (4 villages/120 households per arm) to the wait-list arm, the economic intervention (Trickle Up/TU arm), or to the economic strengthening plus family coaching component (TU+ arm). Intervention effects were tested using repeated-measures mixed-effects regressions.

Results.– At 12 months, compared to the control arm, mothers from both intervention groups receiving economic intervention

demonstrated a reduction in the PHQ-9 depression score (Cohen's $d = -0.67$, $P = .001$ and $d = -0.48$, $P = .005$) and the GAD-7 anxiety score ($d = -0.64$, $P = .001$ and $d = -0.51$, $P = .002$), maintaining effects at 24 months. However, only children from the TU+ showed a reduction in depressive symptoms at 12 months (medium effect size $d = -0.53$, $P = .003$) and 24 months ($d = -0.50$, $P = .004$), compared to the control condition and the economic intervention alone (at 24 months $d = -0.37$, $P = .041$). At 24 months, small effect size improvements in self-esteem were detected in the TU+ group, compared to the control and TU conditions ($d = 0.30$ and $d = 27$, respectively). Trauma symptoms significantly reduced in the TU+ group at 12 months ($IRR = 0.62$, $P = .042$), compared to the control.

Conclusion.– Integrating psycho-social intervention involving all family members with economic empowerment strategies may be an innovative approach for improving emotional well-being among ultra-poor families.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0053

Glutamate anterior cingulate cortex glutamate activity in autism spectrum disorder with and without emotional dysregulation

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Objectives.– To use magnetic resonance spectroscopy (MRS) to identify biomarkers for emotional dysregulation (ED) in youth with autism spectrum disorder (ASD) as measured by subscales of the Child Behavior Checklist (CBCL).

Background.– Previous research has noted significantly high glutamate (Glu) levels in the anterior cingulate cortex (ACC) of ASD youth (Joshi et al., 2012), as well as correlations between Glu levels in the ACC and CBCL subscale scores in subjects with ED (Wozniak et al., 2012). This study compares Glu levels in the dorsal ACC (dACC) in ASD subjects with and without ED, and healthy controls (HCs).

Methods.– We measured Glu concentrations in the dACC of 43 youth (aged: 8–18 years), with and without ASD, using high field (4.0 Tesla) proton MRS. ASD subjects were grouped based on CBCL subscale scores previously associated with deficits in emotional regulation. ASD subjects with ED (> 180) were further separated into those with severe emotional dysregulation (SED) (> 210) ($n = 11$) and deficient emotional self-regulation (DESR) (< 210, > 180) ($n = 18$).

Results.– ASD + ED subjects had significantly higher Glu levels than subjects with only ASD and HCs ($P = 0.006$). ASD + SED subjects had higher levels of Glu than the other groups ($P = 0.003$). Severity of ASD, as measured by the Social-Responsiveness-Scale (SRS), was positively correlated ($P = 0.057$) with Glu levels in the dACC. Subjects with ASD + SED had the strongest positive correlation ($P = 0.001$) between severity of ED and Glu levels in the dACC.

Conclusions.– These results suggest that glutamatergic dysregulation in the dACC could be a useful biomarker of ASD and ED in youth.

University and Sunovion Pharmaceuticals as a site PI for multi-site trials. He is a co-investigator for a clinical trial sponsored by the U.S. Department of Defense. He received an honorarium from the Governor's Council for Medical Research and Treatment of Autism in New Jersey for grant review activities and speaker's honorariums from the American Academy of Child and Adolescent Psychiatry, Massachusetts General Hospital Psychiatry Academy, and the Medical Society of Delaware.

OR0054

Mediating effects of depression on the relationship between resilience and posttraumatic stress symptoms and dissociation in firefighters

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Introduction.– Firefighters are vulnerable to posttraumatic stress symptoms(PTSS), dissociation and depression. There've been many reports about the relationships between resilience and PTSS/dissociation, but few about depression mediating on them.
Objectives.– This study aimed to investigate the relationships between resilience and PTSS/dissociation and whether depression mediates the effects of resilience on PTSS/dissociation.
Methods.– A total of 115 firefighters participated in study. Data were collected via the Life Events Checklist (LEC), Impact of Event Scale-Revised (IES-R), Dissociative Experience Scale (DES-K), Beck Depression Inventory (BDI), and Connor-Davidson Resilience Scale (CD-RISC). Structural equation modeling and path analysis were applied to estimate the relationships between resilience, depression, PTSS, and dissociation by AMOS 21.

		Depression	Dissociation	PTSS
Resilience	direct	-0.504*** (0.008)	-0.084 (0.272)	-0.031 (0.703)
	indirect	-	-0.225** (0.003)	-0.267** (0.004)
	total	-0.504** (0.008)	-0.309** (0.004)	-0.298** (0.004)
Depression	direct	-	0.447*** (0.004)	0.445*** (0.003)
	indirect	-	-	0.062 (0.226)
	total	-	0.447** (0.004)	0.507** (0.004)
Dissociation	direct	-	-	0.138 (0.332)
	indirect	-	-	-
	total	-	-	0.138 (0.332)

Table 1

Results.– The average scores of IES-R, DES-K, BDI, CD-RISC were 10.62 ± 11.55, 6.42 ± 9.76, 5.57 ± 7.37 and 68.82 ± 20.23. Greater resilience and other factors (competence, self-trust, acceptance, control, spirituality) was associated with lower PTSS, dissociation and depression. The goodness-of-fit of structural equation modeling was approved in that model fit ($\chi 2$) was 21.992 (Q-statistics = 1.374, Goodness-of-Fit Index (GFI) = 0.956). The paths

'Resilience→PTSS/Dissociation' were not significant, but indirect paths 'Resilience→Depression→PTSS/Dissociation' were significant .
Conclusions.– The relationships between resilience and PTSS/dissociation were fully mediated by depression, not directly by resilience. Tailored strategies and interventions based on resilience and depression may prevent PTSS/dissociation in firefighters and improve treatments outcomes.
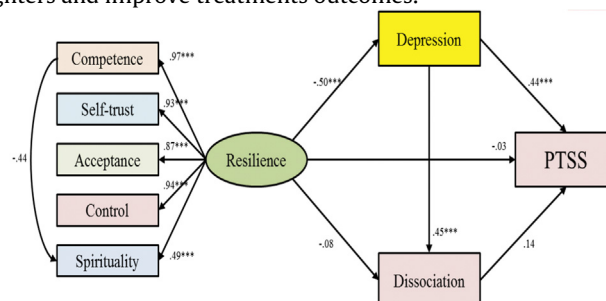

Fig. 1
Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0055

Diagnostic criteria of post-traumatic stress disorder; gender differences

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Introduction.– Potentially traumatic events (PTEs) occur frequently in the Norwegian general populations at 466 (women) and 641 (men) per 100,000 person years (PYs). With subsequent incidence of post-traumatic stress disorder (PTSD) at 88 and 31 per 100,000 PYs. The ability to cope with trauma, determine if PTSD develops. From the literature, we know that men and women are exposed to different trauma, and that women and men react differently to trauma.
Objectives.– The aim of the present study was; to, stratified by gender, examine which ICD-10 diagnostic criteria (B-D) were present in trauma victims who developed subsequent PTSD.
Methods.– Data were from 1634 men and women, aged 18 and above, participating in the OsLof (Oslo and Lofoten) study. To obtain an accurate diagnosis based on ICD-10 criteria an updated electronic version–CIDI-M 1.1, of the Composite International Diagnostic Interview (CIDI) was used. We included reaction to severe stress, and adjustment disorders (ICD-10 code F43.1).
Results.– Among trauma victims, all diagnostic criteria were significantly more frequent among women than men. Among those fulfilling PTSD diagnostic criteria, most gender difference disappeared. While remembering the trauma was more frequent among women, loss of interest was more frequent among men. While consulting a physician was significantly more common among women trauma victims, the gender difference disappeared in PTSD cases.
Conclusions.– Women experience more of the diagnostic criteria for PTSD when exposed to trauma. Screening victims of trauma and designing individual crisis intervention therapy will benefit from including the implications of these findings.
Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0056

The perception of mentally Ill and its impact on desire for social distance by the public in Hanoi, Vietnam

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Introduction.– Depression and schizophrenia are common and often stigmatized psychiatric disorders worldwide and in Vietnam. Public stigma leads to delayed treatment utilization and worsens treatment outcome.

Objectives.– This research aims to understand whether expectations of course of illness and illness attribution have an impact on public stigma.

Methods.– In 2013 a survey ($n = 910$), using unlabelled vignettes depicting a person suffering from schizophrenia or depression was carried out in Hanoi. All respondents were asked whether they believe the person is suffering from a mental illness. As an indicator for stigma desire for social distance was measured. Items asking for the perception of course of illness were clustered by factor analysis. A regression analysis was used to evaluate the impact of these factors on social distance.

Results.– Significantly more respondents, 85% compared to 60% thought that the psychotic person is suffering from a mental illness. This attribution of mental illness was correlated with higher levels of social distance only in the schizophrenia vignette. For both diagnosis, the factor analysis revealed three factors:

– loss of social functioning;

– lifelong dependency;

– positive expectations towards treatment outcome.

While for schizophrenia both negative prognostic perceptions were associated with more social distance, for depression only the expectation of lifelong dependency was. Though, only for depression positive expectations towards treatment outcome were correlated with lower levels of social distance.

Conclusion.– These results indicate an impact of prognostic expectations on desire for social distance and support strategies that aim at maintaining social integration and strengthening autonomy.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0057

A cross-cultural comparison of self-reported burdens between vietnamese and german psychiatric outpatients – findings from an interdisciplinary mixed method study

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Introduction.– Migration in mental health care remains a highly important issue. Today, about 176,000 Vietnamese migrants live in Germany, which makes them the largest Southeast Asian migrant population. However mental health care utilization among this population is minimal. Among the factors influencing mental health care utilization, patient's perception of their burdens is crucial. This emic perspective is also shaped by culture. Thus, innovative research designs are needed to broaden the understanding of such culturally shaped factors.

Objectives.– This study aims to investigate the emic categories of self-reported burdens of Vietnamese and German psychiatric outpatients. Moreover, interviews with Vietnamese patients will be conducted to explore whether additional emic categories will emerge.

Methods.– Vietnamese patients ($n = 117$) and German patients ($n = 117$) filled out the Patient Health Questionnaire (PHQ, 2000). Patients' statements about their self-reported burdens were coded by the psychiatrists, the psychologist and the anthropologists. χ^2-tests were conducted to explore differences in frequency of reported burdens between Vietnamese and German patients.

Results.– The results revealed significant differences between Vietnamese and German patients. Subsequently, a semi-structured interview was developed and $n = 10$ Vietnamese patients were interviewed. The interviews delivered contextualized information on the found categories and revealed additional emic categories of burdens.

Conclusion.– This study illustrates how an interdisciplinary mixed-method approach allows for an in-depth understanding of culturally shaped perceptions of patient's burdens. Clinicians should consider these emic categories and integrate them in their clinical interviews and apply questionnaires, which are co-structured using ethnographic data.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0058

Audit on the management of depression and anxiety in oncology patients undergoing breast surgery and their relative

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Introduction.– This is an audit regarding mental illness in oncology patients. The aim was to identify patients and relatives who suffered from depression and anxiety post breast disease diagnosis. Moreover, the management of mental illness (whether psychiatric or psychological) was assessed.

Objectives.– To identify the pick up rate of depressed and anxious patients undergoing breast surgery including surgery for benign breast disease. To study management of depression and anxiety.

Method.– This audit was carried out over an 8 week period, during which time a total of approximately 50 patients and their relatives were included. The cohort of patients was limited to those admitted under surgical care and reviewed at the pre-operative assessment clinic (POAC). The Hospital Anxiety and Depression Scale (HADS) was used to pick up cases of depression and anxiety.

Results.– Total number of cases of depression (both patients & relatives): 13/91 (14%). Total number of cases of anxiety (both patients & relatives): 13/91 (14%).

Conclusion.– Depression was diagnosed in patients with malignancy but not those suffering from benign breast disease. Relatives of patients suffering from malignancy were more likely to suffer from anxiety than the patients themselves. There is no correlation between mental illness (both depression and anxiety) and

stage of tumour, grade and lymph node involvement. Most of the patients and relatives taking psychiatric drugs had them prescribed according to NICE guidelines. Counselling was not a popular form of psychological therapy for patients and relatives who suffered from depression or anxiety.

Disclosure of interest.– The author has not supplied a conflict of interest statement.

OR0059
Cholinesterase inhibitors and survival in Alzheimer's disease in Down syndrome

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Introduction.– Individuals with Down syndrome (DS) have a genetic predisposition to Alzheimer's disease (AD), but there is considerable variation in the clinical course, which is not well understood. Furthermore, there is little evidence to guide pharmacological treatment.

Objectives.– We used data from a large number of individuals with DS diagnosed with dementia in clinical services in England to explore factors associated with age of onset and predictors of survival. In addition, we investigated the effect of cholinesterase inhibitors or memantine on survival and function.

Methods.– Retrospective clinical cohort study design using clinical data (demographics, age at diagnosis, age at death, health co-morbidities including depression, thyroid disorder and epilepsy) from specialist intellectual disability services in England, UK ($n = 310$). Predictors of age at diagnosis were identified using inferential statistics and confounders adjusted for using multivariate regression. Survival rates were estimated using Kaplan–Meier estimates, and hazard ratios using multivariate Cox regression.

Results.– We describe the typical age at diagnosis and survival of individuals with DS diagnosed with dementia. Median survival time (5.59 years; 95% confidence interval 4.67, 6.67) for those on medication ($n = 145$, mainly cholinesterase inhibitors) was significantly greater than for those untreated ($n = 165$) (3.45 years, 95% confidence interval 2.91, 4.13; $P < 0.001$). Sequential assessments demonstrated an early effect in maintaining cognitive function.

Conclusions.– Cholinesterase inhibitors appear to offer some benefit in people with Down syndrome and AD that is comparable to sporadic AD; a trial to test the effect of earlier treatment (prodromal AD) in Down syndrome may be indicated

Disclosure of interest.– The author has not supplied a conflict of interest statement.

Oral communications 05: Depression part II

OR0060
Major depressive disorder in residents of Fort Mc Murray six months after a wildfire: Prevalence rates and probable correlates

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Objectives.– To assess the prevalence rates for MDD in residents of Fort McMurray six months after the wildfire and to determine the demographic, clinical and other predictors of likely MDD in the respondents.

Methods.– Quantitative data was collected in this cross sectional survey through self-administered paper-based questionnaires, with random selection procedures used to choose study participants from a variety of settings in Fort McMurray. The PHQ-9 was used to assess the presence or absence of likely MDD in respondents.

Results.– Overall, 486 out of 588 respondents with an age range of 18 to 88 and about a two-thirds being females completed in full all of the key psychometric questionnaires and were included in the analysis. The one month prevalence rate for likely MDD six months after the disaster was 14.8% overall (10.4% for males and 17.1% for females). Three out of 18 variables with meaningful relationship to the likely MDD from the univariate analysis made a significant contribution to the logistic regression model. The corresponding odds ratios included 2.77 (95% CI of 1.03–7.46) and 12.75 (95% CI of 2.22–73.21) for those who received limited or no support respectively from friends or family and 5.31 (95% CI of 1.3–20.1) for those who had history of an anxiety disorder before the wildfire.

Conclusion.– Our study has established that whilst a prior diagnosis of an anxiety disorder significantly increased risk for developing MDD following wildfires, high level support from family and friends may be protective against likely MDD.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0061
The effectiveness of various QEEG parameters in theta frequency band in prediction of response to antidepressants in patients with depressive disorder

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Introduction and Objectives.– Previous studies have demonstrated efficacy of several QEEG parameters in theta frequency band (pre-

Table 1.

Parameter	AUC (95% CI)	PPV (95% CI)	NPV (95% CI)
PFCC_1	0.78 (0.70–0.85)	0,82 (0.70–0.90)	0.74 (0.61–0.84)
PC_1	0.62 (0.54–0,70)	0.63 (0.52–0.73)	0.64 (0.48–0.78)
RT_B	0.61 (0.52–0.69)	0.63 (0.53–0.73)	0.64 (0.48–0.78)
RT_1	0.60 (0.51–0.68)	0.61 (0.51–0.70)	0,64 (0.46–0.79)

frontal theta cordance change, absolute and relative prefontal theta power, theta power in specific electrodes, etc.) in the prediction of response to antidepressants.

Aims.– The aim of naturalistic study was to compare the ability of previously identified QEEG parameters in the prediction of response to various antidepressants.

Methods.– All patients were treated with antidepressants (SSRI-58, SNRI-46, NDRI-17, others-18) for $\geq$ 4 weeks. EEG was performed at baseline and week 1 (10/20 system International System).

Results.– Only change of prefrontal cordance at week 1 (PFCC_1), prefrontal cordance value (PC_1) at week 1 and relative theta power at baseline and week 1 (RT_B, RT_1) were identified as predictors. ROC analysis revealed significantly better predictive ability of PFCC_1 in term of AUC value comparing to other identified predictors-see Table 1 for details.

Conclusion.– The change of prefrontal theta cordance seems to be more reliable predictor of treatment outcome than other theta QEEG parameters (Table 1).

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0062

A meta-analysis of dose escalation of antidepressants in unipolar depression concerning double-blind randomized controlled trials

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Introduction.– Initial antidepressant monotherapy is often associated with insufficient response in unipolar depression (UD). One of the next therapeutic steps represents increasing the daily dose of the administered antidepressant, which is also called dose escalation.

Objectives.– We included all available double-blind randomized controlled trials (RCTs), whereby the antidepressant dose was either increased or maintained in depressed patients with insufficient response to a standard-dose antidepressant treatment, and compared the treatment outcomes.

Methods.– The mean change in total scores of the Hamilton Rating Scale for Depression represented the primary outcome. Response rates and discontinuation rates due to -any reason, -inefficacy, and -adverse effects were defined as secondary outcomes. Hedges' g and risk ratios represented effect sizes.

Results.– Seven double-blind RCTs with 8 relevant study arms including 1208 patients treated with fluoxetine (N = 2, n = 448), sertraline (N = 2, n = 272), paroxetine (N = 2, n = 146), duloxetine (N = 1, n = 255), and maprotiline (N = 1, n = 87) were enrolled. No significant

differences between dose escalation and continuing standard-dose treatment were detected, neither for the overall pooled antidepressant groups (N = 7, n = 999; Hedges' g = −0.04, 95% CI: −0.20 to 0.12; P = .63), nor for the individual antidepressants. No significant differences were found for response-rates, all-cause discontinuations and dropouts because of inefficacy. However, dose-escalation was associated with significantly more drop-outs due to adverse effects (P = .04). The severity of depressive symptoms at baseline and the different amounts of dose increments showed no significant impact on the effect sizes.

Conclusions.– Dose-escalation seems not to be superior to continuing a standard-dose after initial non-response to a standard-dose antidepressant monotherapy in UD.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0063

Predictors of poor 6-week outcome in a cohort of major depressive disorder patients treated with antidepressant medication: The role of entrapment

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Introduction.– Increasing evidence supports the role of entrapment, and other evolutionary variables, in the genesis of depression. However, only few studies attempted to assess its influence in remission.

Objectives.– This study, the first of its kind, intends to evaluate evolutionary strategies, child maltreatment, neglect and life events and difficulties (LEDs) as predictors of remission in depressed patients undergoing pharmacological treatment in a psychiatric outpatient sample.

Methods.– A cohort of 139 depressed outpatients undergoing pharmacological treatment was followed prospectively in a naturalistic study during 6 weeks. Two major evaluations were considered: baseline and 6-weeks. Patients were allocated to the Texas Medication Algorithm Project. Variables evaluated at baseline and tested as predictors of remission included: demographic and clinical data, severity of depression, evolutionary variables (entrapment, defeat, social comparison, external shame and submissive behaviour), LEDS and child maltreatment (parental physical and sexual abuse and parental negligence and hostility before seventeen).

Results.– Of the 139 patients, 24.5% remitted at week 6. For the logistic regression:

– higher load of life events and difficulties of the entrapment/humiliation dimension (in the year prior to the index episode);

– higher levels of entrapment predict non-remission.

These variables accounted for 28.7% of the variance.

Conclusions.– This study supports the importance of entrapment, not only as a contributing factor for depression but also as a predictor of remission in major depressive disorder patients.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0064

Long-term risk of developing dementia after electroconvulsive therapy for depression

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Introduction.– Severe depression is associated with an increased risk of developing dementia, but whether electroconvulsive therapy (ECT) modulates this risk remains unknown. Further, concerns have been raised about the long-term cognitive effects of ECT treatment

Objectives.– To estimate long-term risk of developing dementia in patients with severe depression treated with ECT.

Methods.– Retrospective cohort study of 1626 patients with depression treated with ECT in a period from 1976 to 2000 at Aarhus University Hospital (ECT-group). The control group was 15.226 age, sex and diagnosis matched patients admitted to psychiatric departments in the same periods but without ECT treatment. Prior psychiatric admissions were used as a proxy for disease severity. Dementia diagnoses were retrieved in the national patient health registry. Follow-up was at 5 years, 10 years and full follow-up (from index to death or 31.03.2017).

Results.– Adjusted hazard ratios (HR [95% confidence interval]) for receiving a dementia diagnosis in the ECT-group compared to the control group was 0.44 [0.24–0.81] at 5-year follow-up, 0.59 [0.38–0.91] at 10-year follow-up and 0.98 [0.78–1.23] at full follow-up.

Conclusions.– The risk of developing dementia was decreased in patients with depression treated with ECT compared to patients not treated with ECT, but at full follow-up no difference was found. In our sample, the treatment of severe depression with ECT was not associated with an increase in the risk of developing dementia and indeed a potential protective effect was indicated.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0065

Depression is associated with increased risk of cardiovascular diseases in primary care population in Latvia

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Introduction.– Cardiovascular diseases (CVD) are the leading cause of morbidity and mortality worldwide. There is extensive evidence that depression contributes not only to the onset but also to the progression and prognosis of CVD. Recent research suggests that depression may have a more important role in the development of CVD in women, but not in men.

Objectives.– To examine association of depression and prevalence of CVD in primary care population in Latvia.

Methods.– This cross-sectional study was carried out within the framework of the National Research Program BIOMEDICINE at 24 primary care facilities. During one-week period in 2015 all consecutive adult patients attending General practitioner (GP) for medical reasons were invited to complete the Patient Health Questionnaire (PHQ-9) followed by socio-demographic questionnaire and physical measurements. The Mini International Neuropsychiatric Interview (MINI) was conducted over the telephone within 2 weeks after visit to GP. The multivariate model has been developed by using binary logistic regression.

Results.– The study population consisted of 1565 subjects, 31.2% men and 68.8% women. According to medical records 17.1% had CVD. The screening test of depression (PHQ-9) was positive for 14.7% of individuals. According to the MINI 10.3% had current and 28.1% had lifetime depression. When analysis was stratified by gender, depressive symptoms (PHQ-9 $\geq$ 10) were associated with 2.04 ($P=0.004$) times higher odds of CVD in women, but lifetime depression (MINI) was associated with an odds ratio of 3.29 ($P=0.03$) in men.

Conclusions.– Current depressive symptoms in women and lifetime depressive episode in men is associated with higher prevalence of CVD.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0066

Comparison of the effectiveness of allopurinol and placebo in reducing depressive symptoms in patients with major depressive disorder

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Introduction.– Depression is one of the most common psychiatric disorders. It causes severe loss of functioning, disability and also the risk of suicide. Xanthine oxidase inhibitor allopurinol may increase the level of tryptophan (serotonim precursor) and hereby improve the symptoms of depression.

Objectives.– The aim of this study was to compare the effectiveness of allopurinol and placebo in reducing depressive symptoms of major depressive disorder.

Methods.– In this randomized double blind clinical trial 70 patients with major depressive disorder (according to the clinical interview based on DSM-5 criteria) randomly divided into two equal groups. Both groups received citalopram 40 mg per day for 6 weeks. Intervention group recieved allopurinol 300 mg per day for 6 weeks. Control group received placebo. Hamilton depression scale was done at the beginning of the study, the end of the third week, and the end of the study (sixth week). Liver function tests blood level of uric acid were done at the beginning of the study, and after 2, 4 and 6 weeks.

Results.– Intervention group (citalopram plus allopurinol) showed a significantly greater improvement on Hamilton depression scale than the placebo group (citalopram plus placebo) at the end of the third week and the end of the study ($P<0.001$). There was not any significant difference between two groups regarding liver function tests and blood level of uric acid.

Conclusion.– Allopurinol as augmentation therapy is more effective than placebo in the treatment of major depressive disorder.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0067

Intervention for maternal depression and early child development: An RCT from urban slums of Pakistan

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Background.– In Pakistan rates of depression particularly in women are high, as well as other risks to the growth and development of young children and child mortality. Although many cost-effective interventions have been developed in the West however these hardly available in Pakistan due to the poor health systems and lack of appropriately trained mental health professionals

Objectives.– To test the efficacy of Learning through Play Plus (LTP plus Thinking Healthy) program in low resource setting of Pakistan.

Method.– Women aged 18–44years with children aged between 0–30 months, scoring 14 or above on EPDS, meeting inclusion criteria and gave informed consent were included ($n = 811$). Assessment included Patient Health Questionnaire-9 (PHQ-9), Generalized Anxiety Disorder-7 (GAD7), WHO quality of Life Scale, Parenting Stress Index, Home Observation for the Measurement of the Environment Inventory and Ages and Stages Questionnaire. Total 10 group sessions of LTP Plus were delivered by Lady Health Workers (LHWs), co-facilitated by a psychologist.

Results.– Results indicated that there was a significant mean difference between LTP Plus and routine care group on PHQ-9, GAD-7, WHO QOL, PSI, Home inventory and Ages and Stages Questionnaire ($P < 0.000$).

Conclusion.– Results of this LTP Plus study has provided local evidence that the distribution of competencies in mental health across non-specialist health disciplines in primary care can lead to more accessible, efficient and potentially cost-effective health care and can better address the mental health needs of mothers and children in this low resource setting.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0068

Risk factors analysis for late-onset depression and the relationship with cognition based on the default mode sub-network

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Introduction.– Abnormal functional connectivity (FC) in the default mode network (DMN) is an important role in the cognitive impairment in the late-onset depression (LOD) patients. However, little is known about the FC of DMN sub-networks as the risk factors for the LOD.

Objectives.– This study is to explore the risk factors of the LOD based on the DMN sub-networks and further investigate the correlation with the cognition.

Methods.– Total 30 LOD patients and 40 health control underwent the resting-state functional magnetic resonance imaging and cognitive assessments. Firstly, FCs within the DMN sub-networks were determined by placing seeds in the ventral medial prefrontal cortex (vmPFC) and posterior cingulate cortex (PCC). Secondly, the multivariable logistic regression was used to identify the risk factors. Finally, the correlation analysis was performed to investigate the relationship between the risk factors and the cognitive value.

Results.– The study showed that the FCs between the vmPFC and right middle temporal gyrus (vmPFC-MTG_R), between the vmPFC and left precuneus (vmPFC-PCu_L), between the PCC and PCu_L (PCC-PCu_L) were the risk factors of the LOD. Furthermore, both of the vmPFC-MTG_R and PCC-PCu_L correlated with the processing speed ($R = 0.35, P = 0.002; R = 0.41, P = 0.001$). The vmPFC-MTG_R correlated with semantic memory ($R = 0.31, P = 0.009$).

Conclusions.– The results further suggest that the FCs within the DMN sub-networks associated with cognitions can be considered as the risk factors, which may be used to predict the appearance of LOD.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0069

The link between lipid profile and mood disorders development at elderly patients

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It has been established that there is a correlation between serum lipids levels and psychopathological conditions. In this study we included 242 patients: 134 with mood disorders (MD) vs. 108 control group. Atherogenic index (AI) was computed as log (TG/HDL) and HeartScore from a cardiovascular disease risk assessment system. Study data revealed that HDL-cholesterol levels were lower, atherogenic indices higher and HeartScore showed an intermediate risk in MD patients compared with the controls. Patients with MD have significant low HDL-cholesterol (53.38 ± 17.98 vs. $58.50 \pm 21.02; P < 0.05$). AI and HeartScore were significantly increased in MD patients vs. control (0.35 ± 0.31 vs. $0.27 \pm 0.31; P < 0.01$ respectively 2.94 ± 2.37 vs. $2.41 \pm 1.9; P < 0.05$). At MD patients, AI and HeartScore were significant negative correlated with HDL ($r = -0.83; P < 0.00001$ respectively $r = -0.502; P < 0.00001$). Also, we found a positive significant correlation between AI and HeartScore at MD patients ($r = 0.51; P < 0.00001$). The prevalence of dyslipidemia at MD patients increased from 42.37% in the low risk AI group to 60.68% in the high risk AI group. For HeartScore, the prevalence of dyslipidemia increased too, from 43.20 to 56.66%. Multivariate logistic regression analysis showed that, compared to low risk AI, patients with high AI had 2.00-fold risk for MD [OR 2.00, 95% CI: 1.10–3.63; $P = 0.022$]. Also, patients with high HeartScore were 2.09 (OR 2.09, 95% CI: 1.21–3.58; $P = 0.006$) times likely to have MD. These findings suggest that lipid abnormalities are strongly involved in the pathopsysiology of mood disorders. Longitudinal studies are needed to confirm whether these indices maintain their prognostic capacity in long term.

OR0070

Association between cannabis use and prevalence of major depression in a community-based sample from Southern Spain

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Introduction.– Major depressive disorder (MDD) is one of the world leading causes of disability. Cannabis has been frequently linked to psychosis, but its association with depression is not as well studied.
Objectives.– The aim of our study is to explore the association between cannabis use and MDD in the province of Granada, Southern Spain.
Methods.– This is a cross-sectional study based on a community-dwelling adult population living in the province of Granada, Southern Spain. Adults aged 18–80 years were interviewed using the Mini-International Neuropsychiatric Interview (MINI). A variety of exposure assessments were also undertaken, including self-reported cannabis use.
Results.– Our sample is composed of 810 respondents, 48% male and 52% female. Mean age was 47.2 years. Current (2 weeks) prevalence of MDD was 5.2% (95% CI 3.7–6.7). Bivariate analysis showed that cannabis used was associated with an increased risk of MDD, with an OR of 3.2 (95% CI 1.5–6.7). Multivariate factor regression analysis revealed that cannabis use was independently associated with MDD ($OR = 2.95$; 95% CI 1.11–7.81; *standard deviation* = 1.465; P value = 0.029)
Conclusions.– Our results support the findings of previous studies that described cannabis use as a risk factor for developing depression. Mechanisms by which cannabis could lead to depression include neurochemical alterations of monoamines, impaired cognitive performance and psychosocial failure

OR0071

Childhood maltreatment and major depression: Results from the Granad-ep study

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Introduction.– Major depressive disorder (MDD) is one of the world leading causes of disability. It is assumed that the disorder is the result of a complex interaction between biological and psychosocial factors.
Objectives.– The aim of our study is to explore the association between childhood maltreatment and MDD.
Methods.– This is a cross-sectional study based on a community-dwelling adult population living in the province of Granada, Southern Spain. The Mini International Neuropsychiatric Interview (MINI) was our main diagnostic tool. Childhood maltreatment was assessed through the abbreviated Childhood Trauma Questionnaire.

Results.– Our sample is composed of 810 respondents, 48% male and 52% female. Mean age was 47.2 years. Current (2 weeks) prevalence of MDD was 5.2% (95% CI 3.7–6.7). An increased prevalence of MDD was found among those who had suffered childhood sexual abuse ($OR = 19.1^*$, 95% CI 2.6–139.3), although no significant association was found for other types of childhood maltreatment.
Conclusions.– Sexual childhood abuse was associated with MDD, although this association disappeared when adjusting for number of LTEs, as both variables may be collinear with each other. Furthermore, authors have described a synergistic interaction between childhood abuse and LTE (Power et al., 2012). One of the ways childhood abuse could predispose to MDD is through the theory of learned helplessness, which states that children repeatedly subjected to traumatic experiences, against which they find themselves defenceless, may lose their capacity to cope with hardship in their adulthood.

OR0072

Factor structure of the EURO-D Depression Scale in people over 50 in Europe with SHARE

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Objectives.– The aims of this study are: to analyze the factor structure of the EURO-D depression scale; to explore the variables associated with depression and with the EURO-D factors in the SHARE participant countries; and to compare the presence of depression and the factor predominance in the total sample.
Method.– A total of 62,182 participants in Wave 5 (2013) of the 15 participant countries of the Survey of Health, Aging and Retirement in Europe (SHARE) were included. Instruments: The SHARE study and the EURO-D scale. Factor, bivariate and multilevel analyses were performed.
Results.– A poor self-perception of physical health and economic difficulties were the two variables associated with higher levels of depression, also in both factors. Suffering and Motivation were the two resulting factors identified in the EURO-D factor analysis. In the Suffering factor, female gender and younger age (≤ 60) were associated with higher levels of depression, as well as with less activity and exercise, older age (≥ 71), widowhood and lower educational level in the Motivation factor
Conclusions.– Poorer self-perception of physical health, female gender, economic difficulties, widowhood, lower levels of activity and exercise and lower educational level were associated with higher depressive symptomatology. In the countries of southern Europe, the Motivation factor predominated.

OR0073

Sensory profiles as possible predictors of response to psychoactive medications in major affective disorders

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Introduction.– Sensory processing patterns have been proposed as a stable dimension which may help to better characterize individuals with major affective disorders; however, to what extent specific impairments in sensory processing are involved in the pathophysiology of these disabling conditions is unclear.

Objectives.– Our aim was to investigate whether specific sensory profiles may predict the response to psychoactive medications, with particular regard to antidepressants, according to depression, alexithymia, and hopelessness levels.

Methods.– We recruited a sample of 402 outpatients who received maintenance treatment and were in stable psychopathological conditions. Subjects completed the Adolescent/Adult Sensory Profile (AASP), Toronto Alexithymia Scale (TAS-20), second version of the Beck Depression Inventory (BDI-II), and Beck Hopelessness Scale (BHS) according to a longitudinal study design including three time points of measurements.

Results.– Subjects with lower ability to register, seek for sensory information, and greater sensory sensitivity/avoidance better responded to antidepressant medications according to their reduced depression levels. Similarly, participants with greater sensory sensitivity better responded to antidepressants as reported by lower hopelessness levels. Regression analyses revealed that the use of antidepressants was the first variable able to predict depression, hopelessness, and alexithymia levels at baseline, and after three and six months of treatment, respectively, but the pattern of sensory sensitivity contribute to the prediction of depression and hopelessness. This pattern together with low registration predicted even changes in alexithymia levels.

Conclusions.– The careful investigation of sensory processing patterns may provide intriguing insights into specific illness characteristics and treatment response.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0074

Severity, course-trajectory and within-person variability of individual symptoms during 9 years in outpatients with major depression

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Depression shows a large heterogeneity of symptoms between- and within persons over time. However, most outcome research assessed depression as a single underlying latent construct with the sum-score on self-rated scales as an indicator for severity.

Data were derived from the Netherlands Study of Depression and Anxiety (NESDA), a longitudinal cohort study. We included 558 participants with a current MDD at baseline. The Inventory Depressive Symptomatology–Self-Report (IDS-SR) was used to analyze 26 depressive symptoms at up to 6 time points during 9 years of follow-up. Course-trajectories and within-person variability were modelled using 14,508 linear regression models per item and per person.

Patients were on average 42.9 years (*SD* 12.2) with 64.9% women. The highest baseline severity scores were found for the items regarding energy and mood states (Figure 2). Each of the symptoms showed the strongest decline within the first year of follow-up. The core-symptoms depressed mood and anhedonia had the most favorable course, whereas sleeping problems and (psycho-)somatic symptoms were more persistent over the course of 9 years (Figure 3). Within-person variability was highest for mood symptoms and lowest for suicidal ideation (Figure 4).
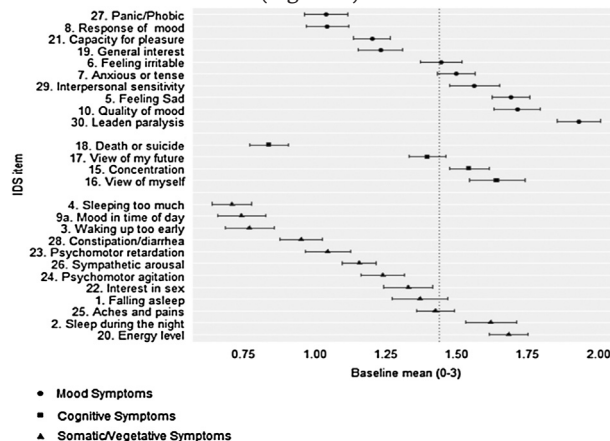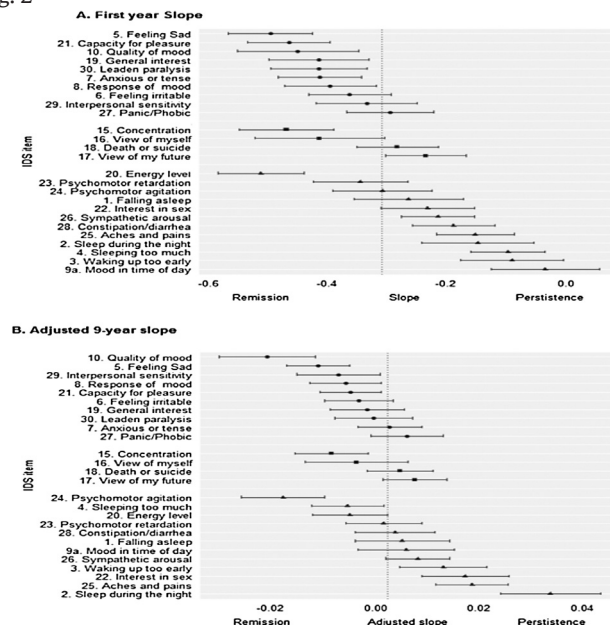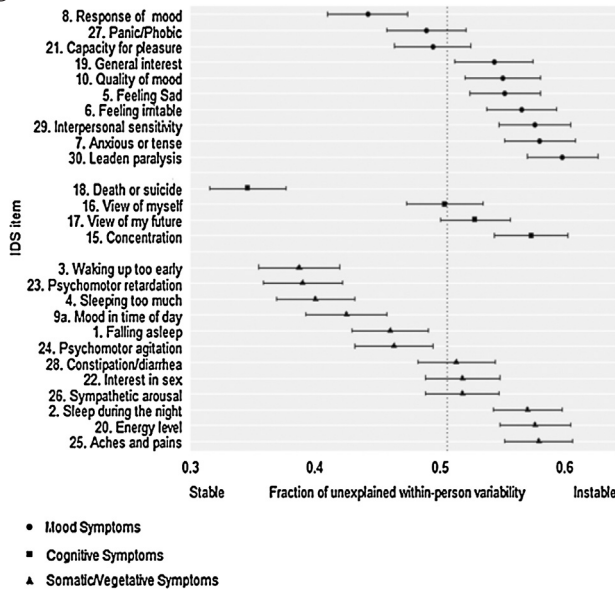

Fig. 2

Fig. 3

Fig. 4

Symptom trajectories were subject to "regression to the mean" effects. We used only the items from the self-rated IDS-SR as outcome measures.

There was evidence for large heterogeneity both between depressive symptoms and within persons over time, which strengthens the idea that a symptom-focused approach in clinical care and research is of importance over and above merely using sum-scores for depression severity.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

Oral communications 06: Depression part i/personality and personality disorders/promotion of mental health/mental health care/research methodology/anxiety disorders and somatoform disorders part II

OR0075
Personality and psychological distress in Portuguese international students: The role of stress and social support

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Introduction.– Personality traits are determinants of stress and psychological distress. International students are more exposed to stress, which contributes to psychological distress and social support is believed to be a protective factor of both of these.

Objective.–to study the mediation role of stress in the relationship between big-five personality traits and psychological distress, exploring the impact of social support as a covariate.

Methods.– A total of 103 Portuguese international students (aged 23.59 years; $SD = 2.08$; 78.6% women) answered PoMS, PSQ and NEO-FFI-20 scales and a question about social support.

Results.– High neuroticism ($r = .623$) and stress ($r = .728$); low levels of extroversion ($r = -.285$), conscientiousness ($r = -.253$), agreeableness ($r = -.229$) and social support ($r = -.329$) were correlated with negative affect ($P < 0.01$ for all). Mediation analysis showed a significant total effect of neuroticism in negative affect. Neuroticism directly and indirectly influenced negative affect through its effect on stress increase; social support did not have a significant impact on stress and negative affect. The direct effects of extroversion, conscientiousness and agreeableness on negative affect were not significant. However, they had total and indirect significant effects on affect: they decreased stress, which in turn increased negative affect. Social support had a protective effect that minimized stress.

Conclusion.– The diathesis-stress model explains the relation between personality traits, stress and psychological distress. Contrary to neuroticism, extroversion, conscientiousness, agreeableness, and perceived social support are protective factors that can buffer against the effects of stressors. These findings may have practical implications to the support of international students.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0076
The role of perfectionism and paranoia on depression: Preliminary results

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Keywords: Depression; Paranoia; Socially-prescribed perfectionism

Introduction.– Socially-Prescribed Perfectionism (SPP) is characterized by a high dependence on others' approval, which can lead to self-devaluation. Some theories defend that paranoid beliefs are a coping strategy to deal with low self-esteem. The result may be a paradoxical psychological distress.

Objectives.– The purpose of this study is to investigate the relationship between SPP and depression and verify if paranoia has a mediating role.

Methods.– The non-clinical sample ($n = 90$) was mostly composed of female (80%) and single (62.2%) individuals. Mean age was 34 years old ($SD = 12.9$). All participants filled in three scales: Multidimensional Perfectionism Scale–short version, Revised General Paranoia Scale and Depression, Anxiety and Stress Scale–short form. Spearman correlations were examined, and mediation models were used with bootstrapping methodology.

Results.– Significant positive associations were found between the variables. A simple mediation model was performed with Persecutory Ideas as a mediator of the relationship between SPP and depression, which explained 17% of the variance. Results showed that the total effect, the direct effect of SPP on depression and the indirect effect were significant.

Conclusions.– The results contribute to the understanding of the psychological mechanisms involved in depression generated by SPP. Considering that 17% of the variance was explained, other variables may be involved. Further study is needed, and final results of

this project may shed light into this. Findings suggest however the importance of addressing paranoid ideation in future therapeutic and preventive interventions.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0077

Personality traits and burnout among trainee-teachers of the regional center for educational and training professions of Casablanca (Morocco)

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Introduction.– Personality has been conceptualized from a variety of theoretical perspectives, and at various levels of abstraction or breadth. In personality research, the most common unit of measurement of individual differences remains trait. Today, a consensus seems to emerge as a general taxonomy of personality traits known as the Big Five, an expression introduced by Goldberg.

Objectives.– Studying the personality traits and its relation to burnout among trainee-teachers.

Methods.– A cross-sectional study carried out among 140 trainee-teachers of the Regional Centre of education and training of Casablanca. The assessment of the personality traits and Burnout was conducted by two scales: The Big five personality test and MBI (Maslach burnout inventory).

Results.– The obtained results showed that 70% of trainee-teachers have a low extraversion, 32% have a low awareness, 50.7% of them represent a low professionalism, 89% have a low neuroticism and 17.9% have a low opening experience. Correlational analyzes showed that the personality trait of agreeableness is positively associated with extraversion ($r = 0.31$, $P < 0.001$). Also, the neuroticism is positively associated with professional conscience ($r = 0.25$, $P < 0.01$). The only significant correlation between Personality test and burn out is found between neuroticism and emotional exhaustion ($r = 0.22$, $P < 0.01$).

Conclusion.– The five personality traits and burnout experienced by the trainee-teachers may cause among certain of them, exhaustion with a great psychological suffering and result in negative impacts. It is therefore desirable to deepen and diversify research perspectives in the field of prevention.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0078

Borderline personality disorder as a mediator of the relation between self-reported childhood traumatic experiences and psychotic-like experiences among patients with mood disorder

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Introduction.– Psychotic-like experiences (PEs) are a common phenomenon among patients with mood disorders. Several state-

and trait-related factors influence reporting of PEs, including mood related cognitive biases, anxiety and features of border-line personality disorder (BPD). A substantial number of studies have suggested that childhood traumatic experiences (CEs) are an important risk factor for both psychotic and mood disorders. Specifically, patients with BPD often report CEs. Thus, we hypothesized that features of BPD may mediate the relationship between self-reported PEs and CEs.

Objectives.– To investigate relationships between self-reported CEs, PEs and features of BPD.

Methods.– As part of the Helsinki University Psychiatric Consortium study, the McLean Screening Instrument (MSI), the Community Assessment of Psychic Experiences (CAPE-42) and the Trauma and Distress Scale (TADS) were filled in by patients with mood disorders ($n = 252$) in psychiatric care. Correlation coefficients between total scores of scales and their dimensions were estimated, multivariate regression and mediation analyses were conducted.

Results.– Total scores of MSI correlated strongly with scores of CAPE-42 "frequency of positive symptoms" ($rho = 0.56$; $P \leq 0.001$) and moderately with TADS ($rho = 0.4$; $P \leq 0.001$). Total score of MSI and its dimension "cognitive symptoms" fully mediated relation between TADS and CAPE-42. Items of MSI "dissociative symptoms", "identity disturbance" and "distrustfulness" shown a partial mediating role (43% (CI = 25–74%); 40% (CI = 30–73%); 18% (CI = 12–50%), respectively).

Conclusions.– Self-reported cognitive-perceptual symptoms of BPD may fully mediate the relationships between CEs and PEs, whereas affective, behavioral and interpersonal symptoms only partially. Recognition of BPD symptoms in patients with mood disorders reporting PEs is important.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0079

Perfectionistic self-presentation as a mediator between narcissism and psychological distress: Preliminary results

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Introduction.– Narcissism is a complex personality trait characterized by grandiosity and self-entitlement, which has been associated with perfectionism and distress. Perfectionistic self-presentation is associated with low levels of self-esteem and dysfunctional cognitive and emotional processes. When associated with perceived failure it may lead to psychological distress in the form of symptoms such as depression and anxiety.

Objectives.– The present study aims to investigate the mediating role of perfectionistic self-presentation in the relationship between narcissism and psychological distress (depression and anxiety).

Methods.– The sample was composed by 215 university students, 72.6% female and 27.4% male, with a mean age of 21.89 years ($SD = 2.12$), which completed several instruments including the Portuguese versions of scales that assess narcissism, perfectionistic self-presentation, depression and anxiety.

Results.– We found significant and positive correlations between the variables. Simple mediation analyses revealed that perfectionist self-presentation mediates the relationship between narcissism and depression and between narcissism and anxiety.

Conclusions.– These findings allowed a greater understanding of the relationship between narcissism, perfectionistic self-presentation and psychological distress. Psychological interventions in narcissistic individuals should target perfectionistic self-presentation to reduce psychological distress.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0080

Episodic memory in autism spectrum disorder: A meta-analysis

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Introduction.– Episodic memory is a complex memory system implicating some abilities that are affected in autism spectrum disorder (ASD). Studies conducted on this topic report contrasting results. Hence, we conducted a meta-analysis of episodic memory impairments in ASD and evaluated possible moderators of these impairments, such as the type of material (visual vs. verbal), items (semantically related vs. semantically unrelated items), and retrieval task (free recall vs. recognition).

Methods.– Twenty-nine case-control studies published from 1997 to February 2017 comparing groups of children, adolescents and adults with ASD to typically developing controls (TD) were included, corresponding to a total of 1057 participants (548 with ASD and 509 TD).

Results.– Results showed that ASD participants demonstrated significantly reduced episodic memory (Cohen's $d = -0.28$ [-0.40; -0.16]; $P < 0.001$) particularly in the visual domain ($d = -0.38$ [-0.66; -0.09]; $P = 0.01$), with no difference in memory for verbal material ($d = -0.12$ [-0.27; 0.03]; $P = 0.11$). However, subgroup analysis revealed a verbal free recall difficulty for semantically related items ($d = -0.51$ [-0.86; -0.17]; $P = 0.004$), but not for semantically unrelated items ($d = 0.21$ [-0.23; 0.65]; $P = 0.36$).

Discussion.– This meta-analysis confirmed the presence of episodic memory difficulties in ASD for verbal material when ASD people are provided unsupported retrieval tasks after on semantically related items. This profile confirms difficulties in ASD in processing complex information implicating binding with semantic knowledge when no support is provided. Our results extend the scope of this difficulty to non-verbal material as has recently been observed in a meta-analysis of working memory tasks (Wang et al., 2017, Neuropsychol Rev 27:46–61).

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0081

Perceived social support and medication compliance among patients with psychiatric disorders

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Keywords: Social support; Medication compliance; Patients with psychiatric disorders

Current studies about increasing compliance to decrease treatment and healthcare costs have gained more significance. Social support is an important component in the recovery of patients with psychiatric disorders; therefore, it is difficult to ignore its role in improving patient's compliance to treatment.

Aims.– This study aimed to assess the levels of perceived social support, medication compliance and their relationship.

Design.– The present study follows a cross sectional design.

Setting.– The study was conducted at the Psychiatric Inpatient Wards of "Tanta University Hospital" and Psychiatry- Neurology and Neurosurgery Center.

Subjects.– The study subjects were 144 psychiatric patients.

Tools.– **Tool (1)**: Socio-demographic data sheet. **Tool (2):** Multidimensional perceived social support scale (MSPSS). **Tool (3)**: Drug attitude inventory (DAI).

Results.– Overall, 74.3% of patients had a poor social support and only 21.5% of them had good medication compliance. There was a statistical significant correlation between perceived social support and medication compliance.

Recommendations.– Development of social skills training program for patients with psychiatric disorders aimed to teach them how to obtain help and support from family, friends, and significant others. Training psychiatric hospital staff to increase their understanding about the importance of their supportive role to provide appropriate nursing intervention for patients with psychiatric disorders.

Disclosure of interest.– The author has not supplied a conflict of interest statement.

OR0082

Anxiety increases the risk of cardiovascular diseases in men but not women: A cross-sectional study of primary care population in Latvia

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Introduction.– Anxiety has been recognized as independent risk factor for development and prognosis of cardiovascular diseases (CVD). Recent evidence suggests possible gender differences for prognostic influence of anxiety, indicating that general anxiety and tension are more consistent CV risk factors for men than women.

Objectives.– To examine the association of anxiety and the prevalence of CVD in primary care population in Latvia.

Methods.– This cross-sectional study was carried out within the framework of the National Research Program BIOMEDICINE at 24 primary care facilities. During one-week period in 2015 all consecutive adult patients attending General practitioner (GP) for medical reasons were invited to complete the Generalized Anxiety Disorder questionnaire (GAD-7) followed by socio-demographic questionnaire and physical measurements. The Mini International Neuropsychiatric Interview (MINI) was conducted over the telephone within 2 weeks after the visit to GP. The multivariate model has been developed by using binary logistic regression.

Results.– The study population consisted of 1565 subjects, 31.2% men and 68.8% women. According to medical records 17.1% ($n = 268$) had a CVD. The screening test of anxiety (GAD-7) was positive for 10.1% of individuals. According to the MINI any anxiety disorder was detected in 16.1% of patients. Most prevalent anxiety disorders were agoraphobia and generalized anxiety disorder, 8.1% and 6.1% respectively. When regression analysis was stratified by gender, current anxiety disorder (MINI) was associated with higher

odds of CVD in men (*odds ratio* = 7.16, 95% CI 1.81–28.34), but not women.

Conclusions.– Current anxiety disorder is associated with a higher prevalence of CVD in men, but not women.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0083

Coping style among doctors and its correlation with depression and subsequent burnout and perceived stress during the residency training

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Introduction.– Understanding doctors' coping style is important for planning for mental health promotion strategies.

Objectives.– To assess coping styles and depression of doctors prior to the beginning of their residency training and to assess the relationship between each coping style and subsequent perceived stress and burnout.

Methods.– The Thai versions of Proactive Coping Inventory and Patient Health Questionnaire were emailed to all of the first-year residents at a university hospital in Academic Year 2015 just 1 week before the beginning of their residency training. Sets of follow-up questionnaires including Thai versions of Perceived Stress Scale and Maslach Burnout Inventory (MBI) were sent out at 1, 3 and 6 months later. Statistical analyses were performed using SPSS 18.

Results.– Among 277 doctors, 102 (36.8%) responded to the survey. The respondents aged 25–33 years (mean = 26.8, *SD* = 1.2) and 69.6% were female. Depression was found in 9.8% of the respondents. Each coping style was not correlated with any subsequent overall MBI and Perceived Stress scores. Moreover, reflective coping which were negatively correlated with depersonalization sub-score of MBI at the 3rd month (*r* = −.363, *P* = 0.030), did not sustain its correlation at the 6th month of residency training.

Conclusions.– Depression was not uncommon among young doctors even before the beginning of their residency training program. No specific coping style showed protective effect against subsequent perceived stress and burnout during the residency training. The results suggest that intervention or mental health promotion programs for doctor that focus only on coping strategies of doctors are unlikely to be successful.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0084

Is the stereotype of the mad psychiatrist a justified prejudice? A comparison of personality traits between psychiatrists and other specialists

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Introduction.– Psychiatrists often suffer a stigmatised image and are considered to be just as sick as their patients. This idea is found in many media. Movies and TV shows categorise psychiatrists in three main clusters ("Dr Dippy", "Dr Wonderful" and "Dr Evil"). We tried to determine whether this assumption was correct or not.

Materials and methods.– We designed a prospective observational study. We distributed locally and nationaly a french version of the TCI-226, developed by Cloninger. Data were collected during August 2016.

Results.– A total of 224 doctors (54 psychiatrists and 170 other specialists) completed the survey. We did not find any difference between the two populations, based on the personnality traits defined in Cloninger's model. When compared to the general population, psychiatrists demonstrated higher scores for Novelty Seeking, Reward Dependence and Cooperativeness, in association with lower Self-Transcendence scores. The other specialists presented the same differences when compared to the general population, in addition to differences among Persistence and Self-Determination scores.

Discussion.– Our results do not allow us to conclude to any differences when the personnality of psychiatrists is compared to the other specialists' one. Moreover, the connection between personnality traits and movies archetypes does not seem to fit perfectly any of the three stereotypes previously described in the literature. The clinical implication of such stereotypes are however paramount, likely helping patients to better accept their disease.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0085

Predicting optimal acute and long-term outcomes in cognitive therapy or interpersonal psychotherapy for depressed individuals using the Personalized Advantage Index Approach

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Introduction.– At a group level, psychotherapies for depression produce equivalent outcomes. However, at an individual level, responses differ for different therapies. Predictors of (differential) outcome have been identified in the context of randomized trials,

but this information has not been used to predict which treatment works best for the depressed individual.

Objectives.– In this presentation, we focus on individual predictions of acute and long term depression outcomes in the context of a randomized trial comparing Cognitive Therapy ($n=76$) and Interpersonal Psychotherapy ($n=75$).

Methods.– We used the Personalized Advantage Index (PAI), recently developed by DeRubeis and colleagues, to combine predictors into an algorithm that generates actionable treatment recommendations for individual patients.

Results.– For a majority of the trial participants, a clinical meaningful advantage was predicted in either CT or IPT, compared to the other treatment. Moreover, those who were randomized to their predicted optimal treatment had far better outcomes than those randomized to their predicted non-optimal treatment.

Conclusions.– Although the utility of the PAI approach will need to be evaluated in prospective research, this study promotes the development of a treatment selection approach that can be used in regular mental health care, advancing the goals of personalized medicine.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0086

A systematic review of subjective side effects following ECT treatment

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Introduction.– Electroconvulsive therapy (ECT) is a highly effective treatment for severe depression however there is debate around the specific long term effects of the treatment on subjective memory.

Objectives.– This review aimed to summarise all studies that have assessed the post-treatment effects of ECT on meaningful memory loss.

Methods.– The systematic review was completed in accordance with PRISMA reporting guidelines. Studies measuring subjective memory at baseline followed by at least one measurement after the completion of treatment using a clearly described method were included. A follow-up period of at least 24 hours after the completion of therapy was required. No limit was placed on the maximum length of follow up. Both prospective and retrospective studies were included

Results.– A total of 16 studies were identified for inclusion in the review. There was considerable heterogeneity in memory assessment method, treatment modality used and length of follow up. Those studies that reported outcomes at six months showed relative stability in subjective memory complaints compared to one month with some suggestion that subjective memory complaints resolve post-treatment in those followed up for sufficient time. Four studies (25%) included patients who had received ultra-brief pulse. Two of these compared brief versus ultrabrief and both reported that ultra-brief was associated with fewer cognitive side effects.

Conclusions.– The few studies that assessed subjective memory several months beyond the end of ECT suggest that subjective memory scores tend to recover over time with ultrabrief pulse showing fewer side effects than brief-pulse therapy. However, there is considerable heterogeneity both between and within studies limiting meaningful conclusions.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0087

Early improvement as a resilience signal predicting later remission to antidepressant treatment in patients with major depressive disorder: Systematic review and meta-analysis

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Early improvement of depressive symptoms during the first two weeks of antidepressant treatment has been discussed to be a resilience signal predicting a later positive treatment outcome in patients with major depressive disorder (MDD). However, the predictive value of early improvement varies between studies, and the use of different antidepressants may explain heterogeneous results. The objective of this review was to assess the predictive value of early improvement on later response and remission and to identify antidepressants with the highest chance of early improvement. We included 17 randomized controlled trials investigating early improvement in 14,779 adult patients with MDD comparing monotherapy with an antidepressant against placebo or another antidepressant drug. 62% (range: 35–85%) of patients treated with an antidepressant and 47% (range: 21–69%) with placebo were early improver, defined as a $>20\%/25\%$ symptom reduction after two weeks of treatment. Early improvement predicted response and remission after 5 to 12 weeks of treatment with high sensitivity (85%; 95%-CI: 84.3 to 85.7) and low to moderate specificity (54%; 95%-CI: 53.1 to 54.9). Early improver had a 8.37 fold (6.97–10.05) higher likelihood to become responder and a 6.38 fold (5.07–8.02) higher likelihood to be remitter at endpoint than non-improver. The highest early improver rates were achieved in patients treated with mirtazapine or a tricyclic antidepressant. This finding of a high predictive value of early improvement on treatment outcome may be important for treatment decisions in the early course of antidepressant treatment. Further studies should test the efficacy of such early treatment decisions.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0088

Depression in lesbian, gay and bisexual French adolescents

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Introduction.– Depression in adolescents is a concern for public authorities, and many studies have indicated that adolescents that identify as lesbian, gay, or bisexual (LGB) have higher levels of depression than their heterosexual peers (HETERO). However, in France, no prior studies have been focused on this subject.

Objective.– This study examines the prevalence of depression in French adolescents, taking into account sexual attraction.

Methods.– A multicenter cross-sectional school survey "Portrait d'adolescents" was conducted in France in 2013. All adolescents of 13 to 20 years old completed a questionnaire including the Adolescent Depression Rating Scale (ADRS): depressed (score ≥ 6).

Results.– Among 14,265 adolescents analyzed, 4.5% was in the LGB group and 95.5% in HETERO group. LGB adolescents were more

likely to have depression than HETERO peers (26.4% vs. 11.5%). Girls were found to be more depressed than boys in both groups (28.8% vs. 18.2% in LGB group; 16.1% vs. 6.7% in HETERO group) (see Figure 1). Only 24.1% of LGB adolescents and 15.2% HETERO adolescents who had depression had been to see a doctor.
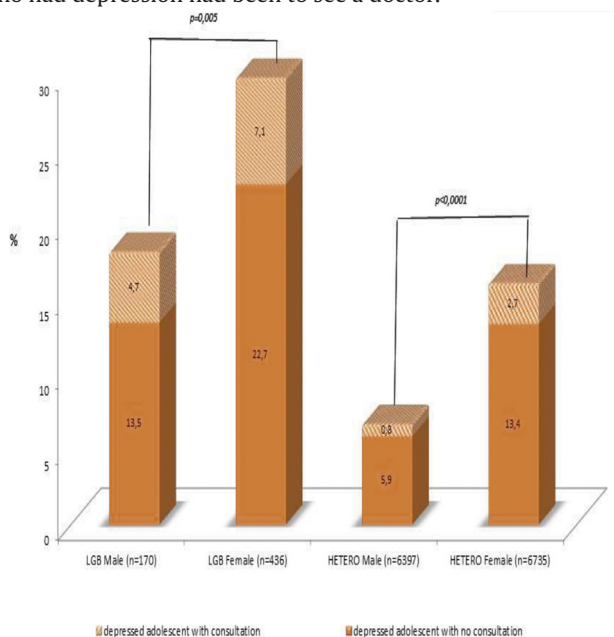

Fig. 1

Conclusion.– This study confirms that adolescents who have a homosexual or bisexual attraction have a greater risk of depression than their heterosexual peers, especially in adolescent girls. Progress is needed to orientate the adolescents with depression to consult a professional.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

Oral communications 07: Schizophrenia and other psychotic disorders – part I/forensic psychiatry/obsessive-compulsive disorder

OR0089
A combination of polymorphisms in three genes contributes to premorbid personality disorders in male patients with schizophrenia

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Most genetic association studies of schizophrenia focused on a search for association between gene polymorphism and disease or its clinical features. However less attention is paid to a role of genetic variants in premorbid functioning. The aim of the present study was to investigate the relationship between the genes, which were previously reported to be associated with symptoms, course and outcome of schizophrenia, and premorbid personality disorders in patients with schizophrenia. We studied the T102C polymorphism of the serotonin receptor type 2A (*5-HTR2A*) gene, the 5-HTTLPR polymorphism of the serotonin transporter gene and the Val66Met polymorphism of the brain-derived neurotrophic factor (*BDNF*) gene. In the literature, genotypes CC (5-HTR2A), LL 5-(HTTLPR) and allele Met (Val66Met BDNF) were associated with worse cognitive functioning and poor outcome in patients with schizophrenia (Golimbet et al., 2002, Notaras et al., 2015, Golimbet et al., 2017). The study included 270 male patients diagnosed with ICD-10 F20 code. Premorbid personality was assessed using clinical interviews, medical records, information from relatives and the Premorbid Adjustment Scale. Patients were stratified into three groups according to the severity of personality pathology:
– slight ($n = 110$);
– moderate ($n = 112$);
– severe ($n = 48$).
Results showed that the frequency of the combined genotype S allele (5-HTTLPR)*ValVal (Val66Met)*TT (5-HTR2A) was significantly higher in the 1st group compared to group 2 ($P = 0.038$) and group 3 ($P = 0.001$). In conclusion, genetic variants examined have a moderating effect on the severity of premorbid personality disorders in patients with schizophrenia. This work was supported by RFBR grant N17-29-02088.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0090
The association between the GWAS risk Allele rs2514218 (C) and schizophrenia is confirmed in the Russian population

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Recently, a genome-wide association study (GWAS) from the Psychiatric Genomic Consortium reported about the discovery of new 108 loci associated with the risk of schizophrenia. One of the loci is the gene coding for the dopamine D2 receptor, which is regarded as a prominent candidate gene for schizophrenia due to its binding to antipsychotic drugs. The top single nucleotide polymorphism (SNP) reported in this locus is rs2514218, located about 47 kb upstream from DRD2. The C allele is the risk allele. We attempted to replicate this finding in an independent sample selected from the Russian population. We studied in total 1747 patients [962 women, 785 men, aged from 17 to 70 years, mean age 35.6 (13.8) years]. Overall, 1571 patients were diagnosed with paranoid schizophrenia (ICD-10 code F20.0), 82 with schizoaffective disorder (F25), 75 with schizotypal personality disorder (F21), 37 with other forms (codes F20.1, F20.2, F20.6). The control group included 1285 healthy people [645 women, 640 men, aged from 17 to 74, mean age 28.4 (11.7) years] without a family history of psychiatric disorders. Genotyping was performed using high resolution melting (HRM) method. The distribution of genotypes was as follows: TT = 922, TC = 687, CC = 138 in the patient group and TT = 626, TC = 535, CC = 124 in controls. There was a significant between-group difference in genotype frequencies ($\chi2 = 6.0$; df = 2; $P = 0.04$). The frequency of the CC genotype was higher in patients compared to controls ($\chi2 = 4.4$; df = 1; $P = 0.03$). In conclusion, our results confirm the association between the risk allele rs2514218(C) and schizophrenia in the Russian population.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0091

Efficacy of cariprazine in predominant negative symptoms of schizophrenia – post hoc analyses against different comparators

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Introduction.– Treatment of predominant negative symptoms (PNS) with available antipsychotics may lead to worsening of the targeted symptoms. As antipsychotics may cause side effects, which mimic negative symptoms, choosing the right agent to treat these symptoms can be difficult.

Objective.– The objective of the present poster is to present efficacy data of cariprazine versus different comparators in the treatment of PNS.

Methods.– Data of PNS population were analyzed from 3 different clinical studies:

– study-1. A phase-3 randomized, double-blind, risperidone-controlled, parallel-group, 26 weeks study in PNS patients;
– study-2. A randomized, double-blind, 6 weeks, placebo and aripiprazole controlled study in patients with acute schizophrenia;
– study-3. A randomized, double-blind, placebo-controlled, relapse prevention study investigating cariprazine versus placebo.

For the efficacy analyses change from baseline to end of 6 weeks or 6 months period on the PANSS-FSNS was analyzed.

Results.– Study-1 ($n = 546$). The difference in mean change from baseline in the PANSS-FSNS was statistically significant for cariprazine versus risperidone from week 14 onwards (-1.5, $P = 0.002$). Study-2 ($n = 112$). The PNS sub-population of patients were analyzed. The difference in mean change from baseline in the PANSS-FSNS was statistically significant for cariprazine versus aripiprazole at week 6 (-2.0, $P = 0.05$). Study-3 ($n = 20$). The difference in mean change from baseline in the PANSS-FSNS was statistically significant for cariprazine versus placebo at week 26 (-2.25, $P = 0.03$).

Conclusion.– Cariprazine showed superior efficacy in the treatment of PNS of schizophrenia versus all investigated comparators, namely placebo, risperidone as well as aripiprazole regardless the design and length of the studies.

Disclosure of interest.– I am a co-worked of Gedeon Richter Plc.

OR0092

Functional remission frequency in a French cohort of schizophrenia patients initiating treatment with long-acting injectable antipsychotic

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Context.– The progress made in schizophrenia treatments has had a substantial effect on evolution of the disease and expectations of clinicians who now aim to achieve both symptomatic and functional remissions. Symptomatic remission frequently goes with improved functioning, but this relationship isn't systematic. Functional remission is evidenced by ability of patients to adapt to difficulties of societal life and to reintegrate their environment. The Functional Remission Observatory Group in Schizophrenia (FROGS) scale is a specific tool recently developed in French language.

Objective.– In a population of schizophrenic patients being treated for an episode of clinical destabilization and followed for a period of twelve months, the main objective is to evaluate the proportion of patients achieving functional remission and its relationship to clinical remission.

Methodology.– R092670SCH4033 was a French, multicentric, prospective, national, non-interventional study, follow-up of one year, three evaluations: D0, D180 and D360. Inclusion: schizophrenia patients (DSM IV), age: 18 to 37, time since long acting antipsychotic initiation: <2 months. Evaluation methods: CGI-I, FROGS scale, 8 items PANSS scale, PSP scale, Insight Scale, SWN scale, EuroQol-5D. Judgment criteria: Functional remission defined on the FROGS scale.

Results & conclusion.– The study is in finalization, data of the 303 patients who completed the study will be frozen in September, statistical analyses will be performed in October, so final results will be shown on the poster [1–3].

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Disclosure of interest.– Study sponsored by Janssen-Cilag France

OR0093

Transition to psychosis and its association to EEG resting-state microstates in high-risk individuals

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Introduction.– The importance of reliably identifying the risk of psychosis transition in high-risk individuals (at-risk mental state, ARMS) has been increasingly acknowledged in recent years. Biomarkers can be highly valuable in heightening prediction specificity. One promising biomarker in this regard are EEG resting-state microstates; these exhibit specific abnormality patterns in patients with schizophrenia, in particular shortening of one microstate class (labeled D). Microstate abnormalities have been previously reported in ARMS as well; however, it is not known whether these are predictive of a future transition into psychosis.

Objectives.– To examine the association of temporal microstate characteristics with transition risk in high-risk individuals.

Methods.– We analyzed resting-state EEG data of 25 healthy controls, 58 medication-naive schizophrenia patients and 57 ARMS of whom 20 later transitioned to psychosis (ARMS-T), recruited via the FePsy (Früherkennung von Psychosen) project. Preprocessed EEG data was spatially clustered into four microstates and labeled according to previously established norms. Mean coverage of total analysis time was computed for each microstate class and included in 4 (group) × 4 (microstate class) ANOVA. Preliminary results are reported.

Results.– A significant interaction between group and microstate class was observed. Follow-up analyses indicated that microstate class D coverage was lower in ARMS-T compared to all other groups.

Conclusion.– ARMS-T exhibited similar changes in microstate D as those previously reported for patients with schizophrenia. This raises the possibility that microstate D abnormalities might not simply index symptom severity, but also an increased risk of transition to psychosis in vulnerable individuals.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0094

Measuring effectiveness of long acting antipsychotics: Are we doing it right? The minimum effective dose method

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Introduction.– Measuring equivalent dose has been a major issue since we started to use antipsychotics. Recently, another method was found to be useful: the minimum effective dose method, that has been used by Rothe et al to measure oral and Long acting injectable antipsychotics.

Objectives.– To compare the doses usually used in the clinical practice with the minimum equivalent dose between 4 LAI antipsychotics: olanzapine pamoate, paliperidone palmitate, risperidone Consta, and aripiprazol in the Abilify formulation

Methods.– We made a search in the database of the Virgen de la Victoria hospital of Malaga of all the patients less than 35 years diagnosed according to criteria of DSM V of acute psychotic disorder or schizophrenia that were being treated with one LAI in monotherapy and that were clinically stable at the beginning of 2016. We searched among the clinical data about relapses during 2016 of each patient. We compared the dose used in clinical practice with the minimum dose found in the previous studies: 50 mg/4 weeks for paliperidone, 210 mg/2 weeks for olanzapine, 400 mg/4 weeks for aripiprazole and 25 mg/2 weeks for risperidone.

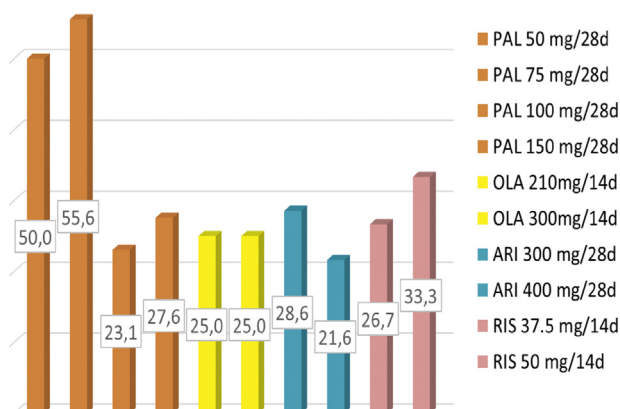*Results.*– Results are shown in Figures 1 and 2.

Fig. 1 Clinical relapses

Drug	Dosage	N	Mean age	Total relapses
Paliperidone	50 mg/28d	4	30,2	2
	75 mg/28d	18	28,4	10
	100 mg/28d	39	28,7	9
	150 mg/28d	29	28,1	8
Olanzapine	210mg/14d	4	26,6	1
	300mg/14d	8	28,3	2
Aripiprazole	300 mg/28d	7	29,5	2
	400 mg/28d	37	28,8	5
Risperdal	37.5 mg/14d	15	32,1	4
	50 mg/14d	18	30,9	6
Total		**179**	**29,16**	**49**

Fig. 2

Conclusion.– In this study, paliperidona has been statistically less effective than other drugs preventing relapse at minimum dose. We need between 2 and 3 times higher dose to be at least as effective as the other drugs. Aripiprazol 400 mg every 4 weeks has been the most effective antipsychotic preventing release, but the difference have not been significant between olanzapine 210 mg/14 d and aripiprazol 400 mg/4w.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0095

Can be IL-2 and IL-1beta specific biomarkers of negative dimension in schizophrenia?

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Introduction.– Cytokine disturbances in schizophrenia (SZ) are widely described. But contradictory data about the relation between cytokines and psychopathology is published [1,2].

Objectives.– To analyze the relationship between pro-inflammatory cytokines and clinical dimensions (positive, negative, depressive, cognitive) in SZ.

Methods.– Sample: 73 outpatients with SZ, length of illness ≤ 10 years, under stable maintenance treatment [mean age (31.7 ± 6.5), males (61.6%)].

Evaluation.– PANSS, Clinical Assessment Interview of Negative Symptoms (CAINS) -Motivation & Pleasure (MAP) and Expression domains-, Calgary Depression Scale (CDS), MATRICS Consensus Cognitive Battery (MCCB), Personal and Social Performance (PSP). Biomarkers: TNF-α, interleukin(IL)-6, IL-2, IL-1β, IL-1RA.

Statistical analyses.– Bonferroni corrected Pearson correlations and multiple linear regression.

Results.– Only IL-2 and IL-1β showed statistically significant correlation:

– IL-2 with PANSS-Total ($r = 0.311$, $P = 0.008$), PANSS-General ($r = 0.288$, $P = 0.015$), CAINS-MAP ($r = 0.310$, $P = 0.008$), PSP ($r = -0.420$, $P < 0.001$);

– IL-1β with PANSS-Total ($r = 0.362$, $P = 0.002$), PANSS-Negative ($r = 0.324$, $P = 0.006$), PANSS-Negative Marder ($r = 0.370$, $P = 0.001$), PANSS-General ($r = 0.309$, $P = 0.009$), PSP ($r = -0.396$, $P = 0.001$);

– multiple linear regression models, adjusting for confounders (age, gender, education, length of ilness, smoking, BMI, waist circumference, antipsychotic equivalent doses, treatment with antidepressants, benzodiazepines or stabilizers), identified that PANSS-Total, Negative, Negative Marder and General scores are predicted by IL-1β concentrations, while CAINS-MAP and PSP score is predicted by IL-2 levels;

– cognitive performance, positive and depressive symptoms severity did not correlate with any cytokine.

Conclusions.–

– IL-2 specifically mark severity of the MAP domain of negative dimension;

– IL-1β is not specific as it also predicts severity of general and global symptomatology.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

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OR0096

Higher baseline C-reactive protein mark poor clinical course in the first ten years of schizophrenia: One-year follow-up study

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Introduction.– C-reactive protein(CRP) was associated with more severe psychopathology and worse cognition in schizophrenia [1,2]. However, no data on CRP and longitudinal clinical course exists.

Objectives.– To evaluate if increased CRP predict clinical outcomes at 1-year follow-up.

Methods.– One-year follow-up study of 50 stable outpatients with schizophrenia (< 10 years of illness) (mean age = 31.1 ± 6.5; 62% males). Patients were classified in two groups: those with low grade inflammation (LGI; CRP = 3–10 mg/L; N = 14 [28%]) vs. those with normal level (NL; CRP ≤ 3 mg/L; N = 36[72%]). Acute inflammation (CRP > 10 mg/L) was an exclusion criteria. At baseline, these groups differed in duration of illness [6 ± 2.7 vs 3.5 ± 3.4years; t = 2.410 ($P = 0.02$)] and BMI [30.3 ± 5.8 vs 26.5 ± 4.2; $t = 2.517$ ($P = 0.015$)] but there were no statistically significant differences in other demoghraphic, clinical and psychometric variables (PANSS, BNSS, CAINS-Motivation/Pleasure & Expression-, Calgary Depression). Clinical course for each psychopathological dimension was determined using the formula: [follow-up -baseline scores]. Positive values were interpreted as worsening, while negative improvement.

Results.– At 1-year follow-up, total sample only improved significantly ($P < 0.05$) in PANSS-Total [$55.8 \pm 16.2 - 59.9 \pm 17.3$], PANSS-General [$26.9 \pm 7.9 - 29.7 \pm 8.9$] and CAINS-Expression [$4.9 \pm 4.2 - 5.7 \pm 4.3$]. Patients with LGI showed worsening of scores on PANSS-Positive, Negative, General, and Total scales, compared to patients with NL [0.86 ± 2 vs -1.3 ± 3.4; 0.86 ± 2.7 vs -1.2 ± 3.2; 0.93 ± 5.5 vs -4.2 ± 5.2; 2.6 ± 6.1 vs -6.7 ± 8.4; respectively (all $P < 0.05$)]. Multiple regression analyses including covariates (BMI, waist circumference, smoking, duration of illness, antipsychotic doses), showed that only CRP = 3–10 mg/L predict worse clinical course on PANSS-Positive, General and Total.

Conclusions.– Higher baseline CRP may be a biomarker of poor clinical course in first ten years of schizophrenia.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

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OR0097

Alteration of inflammatory cytokines in different age-at-onset schizophrenia with neurodevelopmental deficits

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Introduction.– Studies have suggested a role of inflammation and immunity in the pathogenesis of symptoms in schizophrenia through the immune system and the brain development. Early age of onset is associated with genetic factors and neurodevelopment in schizophrenia.

Objectives.– This study aimed to identify immune abnormality associated with neurodevelopmental deficits in early- and adult-onset schizophrenia patients.

Methods.– We enrolled early-onset schizophrenia (EOS), adult-onset schizophrenia (AOS), and healthy controls in this study. The serum levels of IL-1β, IL-4, IL-6, IL-10, IL-12 and TNF-α from schizophrenia patients and healthy controls were determined by enzyme-linked immunosorbent assay (ELISA). Measurements also included the Neurological soft signs (NSS), and Minor physical anomalies (MPA) in all participants to separate neurodevelopmental deficits groups.

Results.– The study included 84 early-onset schizophrenia (EOS), 126 adult-onset schizophrenia (AOS), and 122 healthy controls. There was a significant difference between EOS and AOS patients in IL-4 level. We found similar results in schizophrenia patients with the neurodevelopmental deficits and non-deficits. The ROC curve analysis showed that the AUC of IL-4, IL-6 and IL-12 was 0.83 and accuracy was 0.78 for EOS patients and healthy controls. Moreover, the discriminant analysis conducted of IL-4, IL-6, IL-12 correctly classified 83% cases into EOS patients and healthy controls, and cross-validation rate was 82%. Results showed that IL-4, IL-6 and IL-12 had a good classification ability.

Conclusions.– Cytokine production is altered in EOS and schizophrenia patients with neurodevelopmental deficits. These findings support that cytokines may contribute to the clinical and pathophysiological features of schizophrenia.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0098

Paliperidone palmitate 3-monthly formulation in schizophrenia – baseline interim analysis of a naturalistic, 52-week, prospective study

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Objectives.– To evaluate remission rates, treatment response, tolerability and PP3M patterns of use in schizophrenia patients, transitioned to paliperidone palmitate 3-monthly formulation (PP3 M)

Methods.– Baseline interim analysis of the first 200 patients enrolled (patient's characteristics, disease severity, remission status, functional status, first dose of PP3 M) in a 52-week, prospective, single arm, open-label, international study in patients previously stabilized on PP1 M

Results.– A total of 200 patients analyzed: 62.5% male, mean age: 36.8 [standard deviation (*SD*) 8.0] years, body weight 78.3(17.0), BMI 27.2(5.2) kg/m^2, time from first psychosis to initiation of PP3M 11.9 (7.7) years, number of previous psychiatric hospitalizations 3.2 (2.9), median time on previous PP1 M treatment: 394.5 days (range: 85–1876); mean PANSS total score: 51.7 (11.0) with 57.5% (115/200) of patients fulfilling the symptom severity criteria of remission; PSP total score: 65.5 (14.0); WHODAS total score 16.2 (14.1) in patients with remunerated work items (*n* = 78) and 21.6

(14.9) in patients without remunerated work items(N = 115); Goal Attainment Score (GAS): 36.8(4.3) with 63% reporting one, 14% two and 15.5% three goals; in 98.5% of patients dose conversion from PP1 M to PP3 M was according to label; mean dose of first PP3 M application: 358 (115.7) mg eq.with following dose distribution: 175 mg eq.:11%; 263: 23%, 350: 39%, 525: 27%;

Conclusions.– When transitioning from PP1M to PP3M, the majority of patients fulfilled the symptom severity criteria of remission; PP3M dose conversion (from previous PP1M) was according to the label and dose distribution of first PP3M was corresponding to PP1M dosing in naturalistic studies.

Disclosure of interest.– TAuthor is fulltime employee of Janssen Cilag

OR0099

Increased mortality following myocardial infarction in patients with schizophrenia: A nationwide cohort study

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Introduction.– Patients with schizophrenia have an excess mortality, primarily caused by ischemic heart disease. In fact, the relative risk of myocardial infarction (AMI) in patients with schizophrenia is about 2-fold higher than in the general population. While the general population is experiencing improved survival following AMI, it is unknown whether patients with schizophrenia have benefitted similarly from these improvements.

Objective.–To investigate rates of mortality following AMI and trends in mortality over time in patients with schizophrenia compared to the rates in the general population.

Methods.– The study included all cases of schizophrenia (ICD-8; 295 and ICD-10; F20) in Denmark from 1st January 1980 to 31st December 2015. These were matched 1:5 on year of birth and gender to controls from the general population not diagnosed with a psychiatric disorder. The two cohorts were followed until death, emigration or end of study period. We used first time AMI (ICD-8; 410 and ICD-10; I21) as a time-dependent covariate.

Results.– We included 36,962 patients diagnosed with schizophrenia and 184,810 matched controls. We showed that controls with AMI had a hazard rate ratio (HR) of 3.27, schizophrenia controls had a HR of 4.50, and schizophrenia patients experiencing AMI had a HR of 9.94. Patients with schizophrenia showed an increased mortality rate 1-year and 5-years after AMI, with no difference in 30-day mortality between the groups.

Conclusions.– Patients with schizophrenia experiencing AMI are not benefitting similarly from the improvements in cardiac procedures and treatments as compared to people in the general population experiencing AMI.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0100

Relationships between dysglycaemia, immune activation and psychotic experiences: Findings from the ALSPAC birth cohort

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Background.– Psychosis is associated with dysglycaemia and inflammation, but longitudinal population-based studies are scarce.

Aims.– Using a population birth cohort to investigate:
– the association between dysglycaemia, inflammation and psychotic experiences (PEs);
– whether dysglycaemia moderates or mediates the association between inflammation and psychotic experiences (PEs).

Method.– In the Avon Longitudinal Study of Parents And Children (ALSPAC) birth cohort, insulin resistance (IR), interleukin 6 (IL-6) and C-reactive protein (CRP) levels were measured at age 9 and 18 years. PEs were measured at 12 and 18 years. We used logistic regression to examine cross-sectional and longitudinal relationships between IR and PEs. Linearity of association was tested. Correlation between markers of dysglycaemia and inflammation were tested cross-sectionally and longitudinally. We tested interaction between IR and IL-6 with regards to risk of PEs at age 18. We tested whether IR mediated the relationship between IL-6 and PEs.

Results.– Based on 2627 participants, IR at age 18 years was associated with PEs; adjusted $OR = 2.32$ (95% CI, 1.37–3.97). IR correlated with inflammatory markers cross-sectionally and longitudinally. There was a significant interaction between IL-6 (age 9) and IR at (age 18) with regards to risk of PEs (age 18) ($P = 0.03$). There was no evidence that IR mediated the relationship between IL-6 and PEs.

Implications.– PEs in early-adulthood are associated with IR, which exaggerates the effect of inflammation on the risk of PEs. There is an interplay between immune and metabolic alterations with regards to risk of psychosis, which may be useful for understanding disease pathogenesis and for clinical practice.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0101

First criminal behavior among adults with serious mental illness: Further evidence of the role of gender and substance use disorders

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Introduction.– Substance use disorders (SUD) are well known risk factors for criminal behavior (CB) among patients with serious mental illness. However, the mediating effect of gender on this association has not been specifically explored.

Objectives.– To examine the impact of gender on the clinical characteristics of subjects who exhibited first CB and were admitted (1991–2016) to a Quebec psychiatric hospital.

Methods.– CB is defined as the hospitalization of an accused under a criminal custody order for any conviction. File information was collected for all adult (18–69 years) admissions during the study period. First, a descriptive analysis of the clinical characteristics of

632 subjects with CB was performed. Then, a cross-sectional study comparing clinical features of 400 first time admitted subjects and 232 multiple admission cases was conducted.

Results.– Overall, 10.5% of first time admitted patients had at least one conviction for CB. The CB rates significantly correlated with male gender (84%) and younger age (median: 35 years). Most subjects were admitted only once (64%), with an average of 42 days in the hospital. The CB cases were more likely to be suffering from SUD (10 vs. 5%). No significant correlation with other clinical characteristics such as alcohol misuse, comorbid personality, bipolar or schizophrenic disorders was observed.

Conclusions.– Among patients with serious mental illness, first criminal behavior is associated with male gender, younger age and comorbid SUD. Our findings also provide further supportive evidence that drug misuse may have a greater impact than alcohol misuse on the first instance of CB.

Disclosure of interest.– The author has not supplied a conflict of interest statement.

OR0102
Oxidative and nitrosative markers in obsessive-compulsive disorder: A systematic review and meta-analysis

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Introduction.– Obsessive-compulsive disorder (OCD) is a chronic psychiatric illness with a lifetime prevalence of 2.3% in adults, with nearly two-thirds of patients reporting severe role impairment. The exact aetiology and pathophysiology of OCD remain unknown. However, immune dysfunction and unbalanced oxidative status have been reported, evoking a systemic involvement. Moreover, recent research suggests that pathways involved in oxidative and nitrosative stress (O&NS) may constitute novel therapeutic targets.

Objectives.– To review published evidence on the association between OCD and altered blood O&NS markers.

Methods.– We conducted a systematic review of case-control studies evaluating blood O&NS markers in OCD patients and controls, following the PRISMA statement. Search terms and selection criteria were published a priori. A random effects meta-analysis, using standardized mean differences, was performed for each biomarker when at least two studies were available.

Results.– Twelve studies met inclusion criteria, involving a total of 385 patients and 417 controls. Ten blood O&NS markers were eligible for quantitative analysis. We found that 8-hydroxydeoxyguanosine, nitric oxide, malondialdehyde, superoxide dismutase and glutathione peroxidase were significantly increased, and that total antioxidant status was significantly decreased, in OCD patients when compared with controls.

Conclusions.– Our results suggest that OCD patients have a systemic oxidative imbalance when compared to controls. Quality of evidence is impaired by the limited number of publications and by the quality of the studies. More robust studies are needed in order to support this association.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

Oral communications 08: psychoneuroimmunology/psychophysiology/psychotherapy/rehabilitation and psychoeducation/training in psychiatry/genetics and molecular neurobiology

OR0103
Effect of schizophrenia risk variants on age at onset, age at anti-psychotic treatment initiation and age at first hospitalization in schizophrenia patients

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Introduction.– The age at onset is a useful predictor for schizophrenia prognosis. Early onset (EO) schizophrenia predisposes individuals to greater cognitive deficits and more severe symptoms. In this study, we aimed to validate the risk alleles for schizophrenia, analyzing their effect on the age at onset (AAO), age at antipsychotic treatment initiation, and age at first hospitalization.

Objectives.– The main objective of this study was to validate the effect of the known schizophrenia risk alleles in determining anticipation in EO schizophrenia.

Methods.– We recruited 224 schizophrenia patients in Toronto from the Centre for Addiction and Mental Health (CAMH). All participants were diagnosed using the DSM-IV (SCID-I/P) criteria. Genomic DNA was extracted from white blood cells and genotyped using Illumina 2.5. We performed a secondary analysis focusing on well-known risk alleles ($n = 106$). Information about age at onset, age at first hospitalization and age at antipsychotic treatment initiation was collected through a detailed life-chart administered at the time of the SCID. The data analysis performed using the CAMH Specialized Computing System, a cluster computer available at CAMH.

Results.– The SNP rs55661361 was statistically significant and was associated with anticipation in the EO schizophrenia group. The same SNP (rs55661361) produced significant association with the age at antipsychotic treatment initiation. We also found the SNP rs6704641 significantly associated with age at first hospitalization.

Conclusions.– This study identified the risk loci that may warrant further research in schizophrenia, paving the way for new target discoveries to produce better pharmacological treatments.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0104
Refining suicide prevention: Advances in psychotherapeutic tools

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Introduction.– Psychotherapies for suicide prevention are receiving growing consideration.

Objectives.– Our aim was to evaluate related literature published over the last 3 years.

Methods.– We searched for studies focused on psychotherapies for suicide prevention. Any form of suicidal phenotype [death (SD), attempt (SA), ideation (SI), self-harm (SH), but also non-suicidal

self-injury (NSSI)] was considered. Articles [meta-analyses (A), reviews (B), and original studies (C)] published between 2014 and 2017 were included.

Results.–

– different psychotherapies seemed to be efficacious in the reduction of both SA and NSSI. After a recent SH episode, Cognitive Behavior Therapy (CBT) and Problem-Solving Therapy (PST) were associated with fewer SH repetition at follow-up and SI improvement. Dialectical Behavior Therapy (DBT) was found to reduce SH frequency. Interventions directly addressing suicidal thoughts and behavior during treatment were effective immediately post-treatment and long term on SD and SA, whereas treatments addressing symptoms indirectly associated with suicide (e.g., hopelessness, depression, anxiety, quality of life) were effective only at long term;

– concerning children and/or young people, effective treatments were: CBT (SH and SI), PST (SI), and interpersonal psychotherapy (IPT) (SI). Similarly, promising interventions for elderly in reducing SI were PST and IPT;

– Abandonment Psychotherapy was superior to treatment as usual in reducing suicidal relapse and SI both if administered by certified psychotherapists and nurses. Moreover, Acceptance and Commitment Therapy was found to reduce SI.

Conclusions.– Results indicated an encouraging growth of this research field in the last years and the presence of a number of promising interventions.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0105

Altered Th17 pathway in schizophrenia: Evidences from genetic, gene expression and biochemical studies

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Introduction.– The immuno-inflammatory origin has emerged as a paradigmatic underlying mechanism of schizophrenia in recent times. However, the molecules or cells that confer major effect are yet to be discerned. Th17 cells, a recently identified lineage of T lymphocyte have been demonstrated as a predominant inducer of autoimmunity/inflammation in various pathological conditions. Altered levels of cytokines like IL-17, IL-23, and IL-22 indicate a dys-regulated Th17 pathway in schizophrenia. However, understanding of genetic and transcriptional regulation of this pathway is currently unknown in schizophrenia.

Objectives.– To understand the role of Th17 pathway in schizophrenia by examining genetic variation within *IL17* gene, quantifying gene expression of transcription factors like RORC and STAT3 and determining plasma levels of fifteen cytokines belonging to Th17 pathway.

Methods.– IL17 (rs2275913; G197A) genotyping was done in 221 schizophrenia patients and 223 healthy subjects by PCR-RFLP method. Quantification of lymphocyte gene expression of RORC and STAT3 was performed using TaqMan assay. Plasma levels of a panel of fifteen Th17 pathway related cytokines were estimated by Multiplex Suspension Array in Bioplex platform.

Results.– RORC gene expression was significantly higher in schizophrenia patients [F(1, 103) = 5.89; $P = 0.017$; partial $\eta^2 = 0.054$]. Female schizophrenia patients carrying AA geno-

type of IL17 (G197A polymorphism) exhibited higher score of bizarre behaviour [F (2,161) = 4.82; $P = 0.009$; $\eta^2 = 0.057$] and apathy [F (2,161) = 3.69; $P = 0.027$; $\eta^2 = 0.044$]. In addition, significantly elevated levels of IL-6 ($P = 0.012$) and IL-22 ($P < 0.01$) were observed in schizophrenia patients.

Conclusions.– Our findings suggest a possible role Th17 pathway in the pathobiology of schizophrenia.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0106

Alterations in bioelectric activity of the brain and therapeutic effects of neurofeedback in stroke patients with depressive states

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Introduction.– Post-stroke depression may be related both to situation and to alterations in brain physiology. Thus, neurophysiological approach may be reasonable.

Objectives.– To study the bioelectric activity of the brain and effects of neurofeedback in stroke patients with depressive states.

Methods.– The study included 25 stroke patients who underwent 17 sessions of neurofeedback during a 28-days period. Assessment included Beck Depression Inventory, State-Trait Anxiety Inventory, Hospital Anxiety and Depression Scale, quantitative EEG.

Results.– Strong correlations ($r > 0.8$, $P < 0.01$) of depression severity with beta-rhythm were found in left occipital, frontal, central parts. Average correlations ($r > 0.3$) of depression severity with alpha rhythm were recorded in the left occipital-temporal area, with theta rhythm in the left occipital region, with beta rhythm over all areas, especially in the left hemisphere. The recall of the stroke psychotrauma was associated with regression of the beta and alpha rhythms and with growth of the theta rhythm. After 15 neurofeedback trainings a tendency towards normalization of brain activity was noticed: a decrease in alpha rhythm in both hemispheres in 1.24–1.95 times, in theta rhythm in 1.11–1.51 times, an increase in beta rhythm in 1.14–1.49 times, which correlated with a decrease in the severity of the depressive state.

Conclusions.– Post-stroke depressive states are related to alterations in brain bioelectric activity across a wide range of rhythms and brain areas. Neurofeedback treatment results in concomitant improvements in neurophysiological and emotional states.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0107

The genetics of cognitive functions in major depressive disorder. A review

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Introduction.– Cognition represents mental processes that interprete the world, organize feelings, communicate, think and remember. Those activities are impacted during major depressive disorders (MDD). Cognition has a genetic base. A better understand-

ing of its biological underpinnings would pave the way to more effective strategies to treat mood disorders.

Methods.– Five main systems were reviewed for association between a genetic background and cognition, with a focus on MDD:
– glutamatergic and GABAergic;
– serotoningergic;
– dopaminergic;
– neurotrophic factors;
– cholinergic.

Research was primarily based on clinical association reports, animal models were also included. Results from the GWAS analyses on cognition were also included. Pubmed served as a research engine. The genes belonging to each system were manually extrapolated from www.genecards.com, and organized in molecular pathways.

Result.– The following genes were identified (underlined = human evidence): *GRIA2, GRIA3, GRIA4, GRIK4, GRIK3, GRIN2B, GRIN2A, GRIN2C, GRIN3A, GRIN3B, DLG4, SHANK, GRM1, GRM2, GRM3, GRM4, GRM5, GRM7, SLC1A3, SLC1A2, GAD1, GAD2, SLC6A4, HTR1A, HTR2A, HTR3, HTR3E, HTR3A, HTR1B, HTR2C, DRD2, DRD4, DRD1, COMT, MAO-A, CHRM1, CHRNA7, CHRNB2, BDNF, TNF, CTNNBL1, PTPRO, ATXN2, CYP2DG, APBA1, CADM2, HSE1, NRXN1* and *HEY1.*

Discussion.– Cognition is a multigenetic-driven biologic event. Cognition may be severely impacted during MDD and cognitive resilience or amelioration during treatment are considered positive prognostic factors for a full recovery. Based on previous evidence of genetic influence on animal models and human samles, a set of molecular pathways is created and will be prioritized in GWAS molecular pathway analysis in pharmacogenetic investigations.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0108

New ways to learn psychopharmacology: Receptor polygomis

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Introduction.– Many books show the receptor profile in a difficult way to learn. This traditional approach has been criticized due to excessive information and passive transfer of expert knowledge

Objectives.– We are currently developing this graphics, formally called "Polygomis" because the polygon shape to help students understand and apply basic science concepts like receptor binding profile.
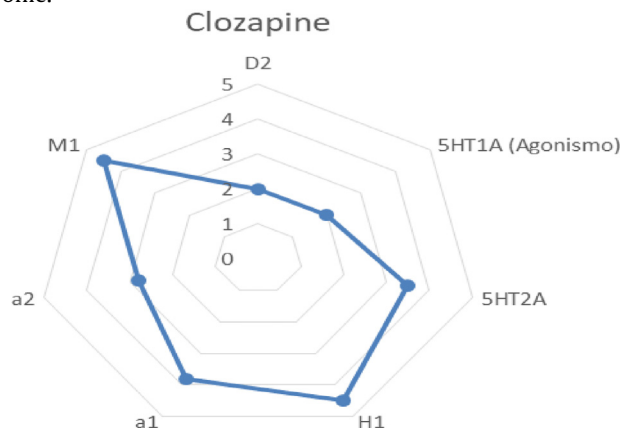

Fig. 1

Methods.– We made a systematic computerized literature search of clinical studies using MEDLINE, The Cochrane Library and Trip look-

ing for papers with comparing data about antipsychotics receptor binding affinity

Results.– The results are shown in figures. Figure 1 is the clozapine receptor binding profile polygomi and Figure 2 is a comparison between 2 antipsychotics binding profile: risperidone and olanzapine. Each vertex of the heptagon represents one receptor: dopamine D2, muscarinic M1, serotonin 5-HT1A and 5-HT2A, histamine H1, alpha 1 and alpha 2 receptors
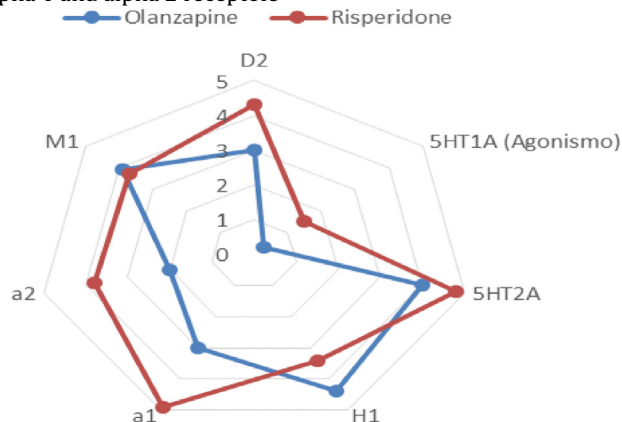

Fig. 2

Conclusion.– We consider this way to learn antipsychotics visual and easy to get an idea of the side effects. Polygomis can be shown adding or removing specifics receptors. Any graphic could be build, like one with two or more antipsychotics to compare them. Our study has several limitations. This graphics could be expanded to old drugs such as perphenazine and sulpiride but we did not found reliable data for the design. The receptor binding profile in laboratory is a standard one and the clinical effectiveness of the antipsychotic could differ from one patient to each other. Some receptor function is not known. Some antipsychotics, like clozapine, have effects not clearly correlated with the binding profile.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0109

Psychiatric disorders in systemic lupus erythematosus

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Introduction.– Systemic lupus erythematosus (SLE) is a prototypic autoimmune disease affecting multiple organ systems. Psychiatric disorder in SLE is a serious and well-recognized problem that remains a significant source of morbidity.

Objectives.– To investigate the frequency and type of psychiatric disease in patients suffering from SLE.

Methods.– This is a retrospective and descriptive study conducted in Internal Medicine and Neurology Departments for a period of 14 years.

Results.– The study included 185 SLE patients. Fifteen of the 40 patients with neuropsychiatric manifestations had psychiatric disorder. A psychosis occurred in 8 women (4.3%). The diagnosis was concomitant with the diagnosis of lupus disease in 7 cases with a mean age of 32.7 years. Two patients had a favorable evolution after

a prescribed sedative symptomatic treatment for an average duration of one week. A state of acute confusion was noted in 7 women (3.8%). The mean age at the time of this confusion was 34 ± 6.5 years. The evolution was favorable in all cases after an average duration of 40 days.

Conclusion.– Psychiatric abnormalities are polymorphic and common accompaniments of SLE. Those disorders are to be anticipated because they can interfere with compliance with the treatment of lupus, but also with the management of lupus.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0110

Stigmatizing attitudes towards mental illness among medical students

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Introduction.– Medical students are at greater risk of depressive symptoms or depression than the general population. A positive attitude towards mental illness is important and desirable in future clinicians as it may impact on the provision of healthcare.

Methods.– A cross-sectional, online survey was conducted to evaluate the attitudes and degree of stigma towards mental illness among pre graduate students. All second-year students were invited to complete the CAMI, RIBS and MAKS questionnaires before taking the Psychological Medicine course. Participation was kept voluntary and responses were anonymized.

Results.– During the last two semesters, 518 of 602 students (response rate = 86,04%) completed the survey. Nearly a quarter (22.5%) of the sample would not be willing to work with someone with a mental health problem. Moreover, 40.6% of the students agreed or strongly agreed that stress is a mental health condition, whereas 97% supported that for schizophrenia. Men showed higher scores ($P < 0.05$) on the "benevolence" CAMI subscale, which corresponds to having more compassion and empathy towards mental health patients than women. Men were also more likely than women to consider grief as a mental disorder ($P < 0.05$). Students currently or ever living with someone with a mental health problem scored higher on the CAMI *(r* = 0.122; *P < 0.005)*.

Conclusions.– Significant gender differences were found regarding knowledge and empathy and compassion attitudes. Anti-stigma preventive measures should be implemented to educate the next generation of healthcare professionals.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0111

Stress, inflammation and depression: Integrative role of the endocannabinoid pathway

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Background.– The endocannabinoid (eCB) system is implicated in pathomechanism of affective diosrders but human genetic studies with interacting stress factors are lacked in this field.

Methods.– We recruited 854 volunteers into our study. Phenotype was measured by the Zung Self Rating Depression Scale (ZSDS), Brief Symptom Inventory (BSI), the STAI State-Trait Anxiety Inventory (STAI trait, STAI-T; STAI state, STAI-S) and Childhood Adversity Questionnaire. Four SNPs (rs1049353 rs470736, rs2180619 in CB1 receptor gene; *R315Q* in CB2 receptor gene and C385A in (fatty acid amide hydrolase, FAAH) were genotyped from DNA of buccal samples.

Results.– Single effect of R315Q on ZSDS score was significant ($P = 0.003$). Epistatic effects were detected between C385A and R315Q on ZSDS score ($P = 0.014$), BSI-ANX ($p_{int} = 0.018$) and STAI-T ($p_{int} = 0.003$). Further interacting effects of R315Q and CNR1 polymorphisms (rs1049353 and rs470736) were significant on ZSDS score ($p_{int} = 0.0003$; $p_{int} = 0.0002$, respectively). Epigenetic effect of childhood trauma was pronounced in case of CNR2. Risk allele carriers of R315Q exhibited higher STAI-T and BSI-ANX scores if they were exposed by higher number of childhood trauma ($p_{int} = 0.018$; $p_{int} = 0.002$, respectively).

Conclusion.– Besides the well-known role of eCB in the stress response our data suggest that eCB signalling can be the shared molecular pathway of neuroendocrinological and neuroimmunological component in pathomechanism of affective disorders via genetically determined variants of *FAAH*, *CNR1* and *CB2* genes.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0112

Recovery model implementation in psychiatric in-patient settings: Pilot study

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Introduction.– Today, the recovery model guides mental health services, including psychiatric hospitals (e.g. NMHDU 2011). However, delivery of recovery oriented services in inpatient settings is still a challenge. A recent qualitative study classified affecting factors into three levels: the environment, the inpatient and the service provider (Chen et al., 2013).

Objectives.– To evaluate impact of factors at the environment, the inpatient and the service provider levels on the recovery model implementation in hospitals.

Methods.– Forty-five service providers and 42 inpatients from three types of wards (acute locked, acute open and day-hospitalization) of two hospitals participated in this cross-sectional study. Data was collected on the inpatients' cognition, functional capacity and illness severity. Service providers' information included professional status and evaluation of the recovery model knowledge and attitudes. Implementation of the recovery model was measured with the Recovery Self-Assessment, inpatients' and service providers' versions.

Results.– Differences were found between the three types of wards in recovery orientation as reported by service providers ($\chi^2_2 = 15.3$, $P < .001$), but not as reported by inpatients ($\chi^2_2 = 2.34$, $P > .05$). Providers' internalized knowledge and attitudes toward recovery (but not formal education in the field), functional capacity of inpatients and age of illness onset were associated with recovery implementation ($0.31 < r < 0.48$, $P < .05$) and explained it ($F_3 = 8.63$, $P < .01$, Adj $R^2 = 0.37$).

Conclusions.– These findings confirm quantitatively multilevel nature of factors that affect the implementation of recovery model in psychiatric hospital and detect the most relevant ones. The results may assist hospital personnel to promote implementation of the recovery model in psychiatric hospital.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0113

Effects of immunomodulatory drugs on the development of chronic opiate dependence in experimental animals

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Background.– Morphine immunomodulatory activities have been characterized in animal and human studies. Morphine can decrease the effectiveness of several functions of both natural and adaptive immunity, and significantly reduces cellular immunity.

Objectives.– We examined effects of two immunomodulatory drugs on the development of morphine dependence, function of brain cells and cellular immune response in animals.

Methods.– Wistar and OXYS male rats were used in experiments. Morphine dependence was developed by the method of compulsory drink. Myelopid ($100\,\mu g/kg$), T-activine ($10\,\mu g/kg$) were injected intraperitoneally on the 1st and 10th days of soldering. Immunomodulator's effects on the nervous cells, behavioral and immune parameters in animals were estimated.

Results.– OXYS rats were highly sensitive to morphine and showed accelerated development of chronic dependence. T- aktivin or Myelopid administration significantly increased a period of dependence formation from 25 days to 32–35 days in all animals and changed OXYS rat's behavior in the "open-field" test. It was shown also protective effects of six myelopeptides (which are part of myelopid) in hippocampal slice culture treated with toxic morphine dose, as well as on morphine-induced oxidative stress and apoptosis in neuroblastoma C-1300 cells. The use of both immunomodulators in the development of morphine dependence prevents the suppression of the delayed type hypersensitivity reaction in all animals.

Conclusion.– T-activin and myelopid increased the opiate dependence development period reduced the morphine-induced immunosuppression and possess antiapoptotic and antioxidant properties in the toxic effect of morphine on nervous cells. Hence, their use promising both for treatment and for the prevention of opiate addiction.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0114

Innate immunity alterations in schizophrenia: A computational deconvolution study of leukocyte counts

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Introduction.– Accumulating evidence indicates various immune system dysregulations in patients with schizophrenia. For instance, several alterations in the levels of distinct leukocytes subpopulations have been reported in this group of patients. However, previous studies investigating leukocyte counts in schizophrenia have provided mixed findings and used various analytical techniques.

Objective.–In this study, we aimed to estimate leukocyte counts based on data from peripheral blood DNA expression profiles.

Methods.– We translated a computational deconvolution approach to estimate leukocyte counts using publicly available data from studies profiling global DNA expression. Our analysis was performed on two independent datasets, representing a total of 711 schizophrenia patients and 713 healthy controls.

Results.– We found significantly lower levels of CD8+ and NK cells as well as significantly higher levels of granulocytes in patients with schizophrenia across both datasets. In addition, there was significantly lower level of CD4+ cells in one dataset. Differences in CD8+ cells were not significant after co-varying for age and sex in one dataset.

Conclusions.– Taking into account concordant results in both datasets, our study indicates that patients with schizophrenia present specific alterations of innate immunity, manifesting in decreased levels of NK cells and increased levels of granulocytes. Longitudinal studies are needed to disentangle whether these alterations are specific to any phase of the illness and whether antipsychotic treatment contributes to changes in the levels of NK cells and granulocytes.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0115

Histone deacetylase inhibition during CUMS prevents anhedonia in male rat

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Pleasure unresponsiveness or anhedonia, is a symptom of neuropsychiatric conditions, but in major depression it is the core one. There is "anhedonic phenotype" in normal population, as well. Stress is risk factor for anhedonia through epigenetic modifications. As phenotype, anhedonia is potent risk factor, for mental disorders. Stress modulate histone deacetylase and mineralocorticoid receptors' gene expression.here, we studied histone deacetylase inhibitor, "valproic acid", on stress induced anhedonia control.

Material and method.– Male rats, (200–250g) living in standard situation for light,food and water were choosed randomly. Rats divided into two CUMS and non-stressed groups. Both groups divided to VPA treated and saline, sub-groups. Six weeks CUMS, protocol induce anhedonia. Treatment (VPA, 200 mg/kg day or saline) started from second week of CUMS and continued all along it. After

stress SCT and NORT, applied. Fresh and fixed brain samples, for RT-PCR and Nissl staining, prepared.

Results.– SCT and NORT were both impaired, in CUMS + saline group compared with non-stressed (*P* < 0.001). Comparement of CUMS + VPA with non-stressed subgroups showed no difference,in behavioral tests.MC4R and HDAC expression were both increased in CUMS + saline (*P* < 0.001). Both genes' expressions were decreased in CUMS + VPA, compared with stresse + saline (*P* < 0.001, MC4R) and (*P* < 0.001, HDAC). Gene expression in CUMS + VPA and non-stressed, showed no difference. Nissle showed decreased NAc cell count, in CUMS + saline, compared with non-stressed group (*P* < 0.001). In CUMS + VPA cell count there was no difference, compared with non-stressed.

Conclusion.– In this study, we showed that valproic acid as an HDACI controlled the impact of stress, and prevented it is anhedonic manifestations at least partly by modulation of HDAC and *MC4R* genes.
Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0116

A psychophysiological study of cognitive disorders in naive middle-age patients with uncomplicated essential hypertension and white matter lesions

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Introduction.– Presence of cognitive disorders (CD) alongside essential hypertension (EH) is most commonly associated with white matter lesions (WMLs).

Objectives.– To assess cognitive functions in EH patients and healthy persons and evaluate the connection of the revealed CD with the presence of WMLs.

Methods.– The study involved 39 naive middle-age patients with uncomplicated EH, stage 1–2, average age is $51,9 \pm 6,5$ and 49 normotensive persons, average age is $47,9 \pm 6,2$. WMLs have been revealed in 6 persons from the control group and 16 persons from the EH group. Brain MRIs have been obtained using a 3-TMR scanner MAGNETOM Skyra 3T ("Siemens"). The assessment of cognitive functions has been conducted using a Trail Making test, MoCA test, Verbal fluency test, Stroop test, CERAD 10-word list and Pictogram test.

Results.– Patients with WMLs differ significantly from persons with normal appearance white matter (NAWM) in the following indicators in Pictogram test: quantity of the concrete images (0.7 ± 0.1 VS $2.7 \pm 0,9$; *P* = 0.009); inertness of mental processes (0.80 ± 0.2 VS 0.05 ± 0.01; *P* = 0.009); decreasing accuracy of recalled words (3.7 ± 1.1 VS 0.8 ± 0.9; *P* = 0.02); decreased recall of affective words (5.71 ± 2.3 VS 3.0 ± 1.8; *P* = 0.02). TMT has revealed the presence of differences between groups in B-scores: (81.33 ± 15.6 VS 115.18 ± 13.7; *P* = 0.02).

Conclusion.– The results indicate differences in cognitive functioning between NAWM and WMLs in respect not only to patients with EH but for their peers without EH as well. These results necessitate further research aimed at verification of the hypothesis about the connection between CD in EH patients with WMLs.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0117

A role of T cell subsets in the immun dysfunction of schizophrenia

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Introduction.– Schizophrenia has been associated with increased level of peripheral pro-inflammatory markers. These findings have supported to conceptualize schizophrenia as a chronic low-grade inflammatory disorder.

*Objective.–*The underlying mechanisms of this phenomenon may include changes in circulating cells and their activation profiles. An investigation of T cell subsets and their activation profiles might be helpful to understand the underlying mechanism of the immunopathogenesis in schizophrenia.

Method.– A total of 40 stable-chronic subjects with schizophrenia (all medicated; 9 of all with treatment resistant schizophrenia) and 40 age-sex-smoking status matched controls were recruited in this study. Peripheral blood mononuclear cells (PBMC) were isolated and phenotyped (CD3+, CD4+,CD8+,CD14+,CD19+,CD20+,CD16 + 56+,CD25+ and FoxP3 +), and after 72 h co-culture with anti-CD3+ measured their Th1/Th2/Th17 cytokines (IL-2,IL-4,IL-6,IL-10,IFN,TNF,IL-17) production and change of CD4 + CD25+ and CD4 + CD25 + FoxP3 cells proliferation. In addition, the cytokines were performed in plasma. In a large panel of immun cell subsets and cytokines were measured by multi-color flow cytometry.

Results.– Schizophrenic patients showed lower percentage of CD3+ cells compered to healthy controls; after in vitro stimulation, levels of cytokines IL-6, IFN-g, TNF-a, IL-17 were found significantly higher than controls, CD + 4CD + 25FoxP3 regulatory cells proliferation was found lower than controls, CD4 + CD25+ activated T cells proliferation was found higher than controls. Furthermore, immun cells panel was associated with a strong bias to Th reg rather Th 17(IL-10/IL-17).

Conclusion.– Our data suggest that disfunction of T regulatory cells cause imbalance in T cell mediated autoimmunity in schizophrenia.
Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0118

ß2-microglobulin: A potential biomarker for bipolar disorder and schizophrenia?

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Introduction.– Bipolar disorder (BD) and schizophrenia (SZ) are staging disorders with progressive cognitive/functioning

decline. Among etiopathogenic hypothesis, immuno-inflammatory dysfunction re-emerged recently, setting the innovative field of immunopsychiatry. ß$_2$-microglobulin (ß2m) is a potential biomarker for cognitive decline:

– part of MHC-I molecules at cell surface, its circulating concentration reflects cellular immunity activation;

– while MHC-I has a pivotal role in neuro-development/plasticity, ß2m is implicated in cognitive ageing processes.

However, its relationship with psychiatric condition remain unclear. We hence hypothesized that serum ß2m level may reflect acute episodes and functioning impairment in BD and SZ.

Methods.– We analyzed ß2m levels in a cohort of 128 BD/59 SZ acute episode inpatients assessed twice (admission & discharge), compared with 46 BD/46 SZ stabilized outpatients and 115 healthy controls. Subjects were clinically assessed by standardized interview: MADRS, YMRS, PANSS for symptom dimensions and GAF, CGI, FAST for global functioning. Data analysis compared serum ß2m between groups (ANOVA/group-by-group *t*-test) then admission vs discharge (paired *t*-test). Finally, we explored correlations with clinical scores.

Results.– Significant ß2m level differences appeared between groups ($P < 10^{-4}$) but remained stable on discharge vs admission. In BD, ß2 m levels were higher on acute episode (1.88 ± 0.53 µg/mL) compared to euthymia (1.65 ± 0.42 µg/mL, $P < .005$) and controls (1.58 ± 0.41 µg/mL, $P < 10^{-5}$). In SZ, patients had higher ß2m levels (1.84 ± 0.54 µg/mL, $P < .002$) compared with controls, correlated with PANSS disorganization sub-score (N7 + G11 + G10 + P2 + N5 items, $P < 10^{-3}$).

Conclusion.– These preliminary data suggest serum ß2m as a state biomarker of acute phase BD and a disorganization severity biomarker in SZ. Further analysis will investigate it on a staging and functioning perspective.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0119

Psychological interventions in patients undergoing bariatric surgery – preliminary results of a systematic review

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Introduction.– Bariatric surgery (BS) is the most effective treatment for morbid obesity. BS preoperative weight loss (WL) and lifestyle interventions can result in fewer complications and lower chance of weight regain.

Objectives.– To assess the effectiveness of perioperative psychological interventions (PI) in morbidly obese patients undergoing BS.

Methods.– A protocol is currently awaiting for acceptance in PROSPERO. We comprehensively searched electronic databases for relevant studies. Screening and data extraction were performed by two independent reviewers. Third reviewer resolved conflicts.

Results.– Of 10,339 identified papers we included 9 studies (12 papers), recruiting 2417 patients (79% women) in total. Mean age was 44.9 (18 to 68). Mean number of patients was 269 (43–929). Five studies provided PI after BS and 4 both before and after. Four studies gave intervention as group sessions, 3 as individual and 2 as mixed. Mean number of PI sessions was 11 (4 before and

7 after BS). Single session duration ranged from 15 to 180 min. BMI loss was 9.4–16.6 in intervention and 10.7–16.4 kg/m^2 in control group, while WL: 33.7–48.7 kg and 38.1–45.3 kg respectively. Results regarding WL were not consistent between studies. Only 2 studies showed significant difference in WL between the groups (1 in favour of intervention, 1 in favour of control group). Final results will be presented at the conference.

Conclusions.– It is unclear whether PI provides additional weight loss as study results are not consistent.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

Oral communications 09: Suicidology and suicide prevention/substance related and addictive disorders/women, gender and mental health

OR0120

Stressful exposure to the public in the workplace is associated with alcohol, tobacco and cannabis use: Findings from the large population-based constances cohort

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Objectives.– Emotional job demand is a growing issue in european countries. However, associations between this occupational risk and addictive behaviors are underexplored. Our aim was to examine the associations between stressful exposure to the public in the workplace and alcohol, tobacco and cannabis use.

Methods.– From the French population-based Constances cohort, 10,794 men and 14,040 women reported a current job with a daily exposure to the public. Stressful exposure to the public (often versus rarely) was self-reported as well as the following dependent variables: weekly alcohol consumption, frequency of heavy episodic drinking, alcohol use risk categories (mild, dangerous, problematic or dependence) defined with the Alcohol Use Disorders Identification Test, smoking status, daily tobacco consumption and monthly cannabis consumption. Logistic regressions provided odds ratios of substance use, stratifying for gender and adjusting for sociodemographic confunders, depression, effort-reward imbalance and perceived health status.

Results.– Among men, stressful exposure to the public was positively associated with frequency of heavy episodic drinking, smoking status and daily tobacco consumption. Among women, positive associations were observed with smoking status, daily tobacco consumption, and monthly cannabis consumption. Regarding alcohol use in women, positive associations were found with daily alcohol consumption and with alcohol use risk categories as follows: *OR* (95%CI) = 1,32 (1,14–1,52) and *OR* (95%CI) = 2,12 (1,44–3,11) for being in the "dangerous" and in the "problematic or dependence" categories compared to the "mild" one, respectively.

Conclusions.– Workers exposed to emotional demand should benefit from screening for addictions as well as from interventions aiming at reducing substance use by decreasing work stress.

Disclosure of interest.– Guillaume Airagnes has received speaker and consulting fees from Lundbeck. Cédric Lemogne has received speaker and consulting fees from Daiichi-Sankyo, Janssen, Lundbeck, Otsuka Pharmaceuticals and Servier. Frédéric Limosin

has received speaker and consulting fees from Astra Zeneca, Euthérapie-Servier, Janssen, Lundbeck, Otsuka Pharmaceuticals and Roche. Marcel Goldberg and Marie Zins have nothing to declare.

OR0121
Thyroid axis functioning in patients with high suicide risk

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Introduction.– Dysfunction of the thyroid gland is frequently associated with affective and psychotic disorders [Bauer 2008; Bunevicius 2016], but the role of thyroid hormones in association with suicidal behavior is not clearly defined. The suicide rate in Lithuania is the highest in Europe [WHO, 2015], therefore the analysis of factors for suicide risk remains an important task.

Objectives.– To evaluate thyroid axis functioning in patients with high suicide risk, hospitalized in psychiatric hospital in comparison to healthy donors-controls.

Methods.– Adults, non-psychotic patients, without cognitive impairment, hospitalized due to high suicide risk were invited to participate in the study. All 56 patients filled the sociodemographic questionnaire. Blood samples were assessed for Thyroid stimulating hormone (TSH), free thyroxine (FT4) and free triiodothyronine (FT3) concentrations. Blood samples of 120 healthy blood donors were served as control group.

Results.– There were no significant mean age differences among patients and controls (36.46 ± 13.13 years vs. 34.31 ± 12.96 years, respectively; $P = 0.307$). Patient group had higher prevalence of women (66.1% vs 42.5%, respectively; $P = 0.003$), so all hormone comparisons were controlled for gender. In our study, patients in comparison to controls had lower mean FT3 concentrations (4.0 ± 0.84 pmol/L vs. 5.22 ± 0.86 pmol/L, respectively; $P < 0.001$) and lower mean FT4 concentrations (13.57 ± 2.62 pmol/L vs. 16.79 ± 2.28 pmol/L; $P < 0.001$), without significant differences in TSH concentrations (1.83 ± 1.45 mU/L vs. 1.63 ± 1.36 mU/L, $P = 0.36$).

Conclusions.– Patients, hospitalized with high suicide risk in comparison to the healthy control group had lower FT3 and lower FT4 concentrations without differences in TSH concentrations. Lower free thyroid hormones concentrations in patients with high suicide risk did not affect thyroid hormone activity in pituitary.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0122
Perceived stigma as a potential moderator of treatment outcome in persons with gender dysphoria: A two-year follow-up study

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Introduction.– Enacted and perceived transphobia is a relevant issue in clinical management of persons with gender dysphoria (GD). The reduction body dissatisfaction is an important target of hormonal treatment.

Objective.– To evaluate whether internalized transphobia represented a moderator of the effects of hormonal treatment in GD persons.

Methods.– Fifty male-to-female (MtF), 50 female-to-male (FtM) were evaluated bu means Main Outcome Measures. Subjects were studied by means of the Structured Clinical Interview, the Symptom Checklist (SCL-90), the Body Uneasiness Test (BUT), the Attitudes Toward Transgendered Individuals Scale (ATTI). The evaluation was repeated 2 years prospectively, after cross-sex hormonal treatment.

Results.– Both MtF and FtM groups reported a significant reduction of SCL-90 and BUT scores across time. When stratifying patients on the basis of transphobia scores a significant effects on BUT reduction was observed: the group with low internalized transphobia reported a stable reduction of BUT scores across time, while the group with high internalized transphobia reported a not significant reduction of these psychopathological feature (Figure 1).
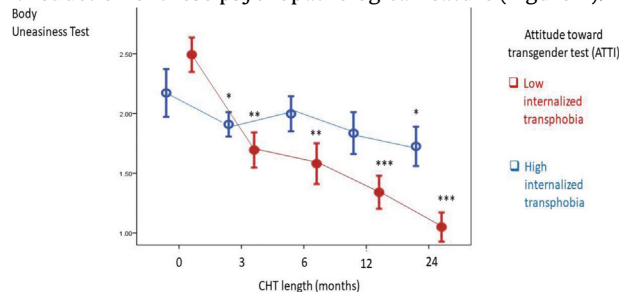

Fig. 1 Internalized transphobia and body uneasiness change after CHT.

Conclusions.– Hormonal treatment is effective in reducing psychopathology in persons with GD. Internalized stigma is a relevant matter of concern in GD clinical management, as it might moderate the effects of cross-sex hormonal treatment in terms of psychopathology reduction.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0123
Differential association between cytokines and cerebral activations during experience of social exclusion

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Objective.–To measure the association between cerebral activations during experimental social exclusion and levels of inflammatory markers in subjects having a history of major depressive episode with or without suicidal act.

Methods.– A total of 116 euthymic females divided in 3 groups: 45 having a history of depression and suicide attempt, 43 having a history of depression without suicide attempt and 28 healthy subjects. During fMRI, they performed cyberball game, a validated social exclusion task. Blood levels of cytokines IL-1B, IL-6, TNF-a and IL-2 were measured prior to fMRI. Analyses were performed in regions of interest: insula, orbitofrontal cortex (OFC) and anterior cingulate cortex (ACC).

Results.– Baseline IL-1 Beta was negatively associated with R-OFC ($P = 0.01$), whereas baseline IL-2 was positively associated with R-ACC ($P = 0.02$); R-insula ($P = 0.002$) and R-OFC ($P = 0.004$). These associations remained significant after controlling on group, the

type of mood disorder (unipolar or bipolar) and level of social distress.

Conclusion.– Baseline IL-1 and IL-2 blood levels show differential association with cerebral activations involved in perception of social exclusion, independently of suicidal behavior or mood disorder history. Our results may help to better understand the role of basal inflammation in social stress and its link with pathophysiology of mood disorders.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0124
Case-control study of suicide in children and young people using linked primary and secondary routinely collected electronic health records

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Introduction.– Recent studies have focused on health care contacts for all those who complete suicide to highlight opportunities for intervention. In Wales, electronic health records (EHR) are routinely collected, providing an invaluable opportunity for researching suicide risk factors readily available to practitioners.

Objectives.– In this study, we linked primary and secondary EHRs in a bid to identify suicide risk factors for those between 10 and 24 years of age.

Methods.– We linked seven different datasets: National Statistics Annual District Deaths Extract, Welsh Demographic Service, Welsh Primary Care GP, Patient Episode Database for Wales, Outpatient Dataset, Emergency Department Data Set and National Community Child datasets. After identifying a total of 490 cases, we matched them with 10 controls of same gender and age (± 1 year). We identified cases' and controls' mothers and cohabitants. We measured a number of factors from this population, including self-harm, mental health issues and drugs and alcohol misuse, and fed them into a conditional logistic regression model.

Results.– Preliminary results suggest that environmental factors extracted from cohabitants have a statistically significant effect even after adjusting for deprivation. In addition, self-harm and mental health events seem to be the strongest factors by far of those considered in the study.

Conclusions.– Our preliminary analysis indicate that the use of linked EHR for the study of suicide can yield interesting results. Once completed, we hope this study will help to identify other suicide risk factors readily available for practitioners and can therefore be quickly used to identify opportunities for intervention and improve care.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0125
The influence of mass media on body satisfaction in young females: The role of emotional reappraisal

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Introduction.– Dysmorphophobia and related disorders are a major challenge of contemporary mental healthcare. It is supposed that persistent translation of ideal body image by mass media may interfere with body satisfaction in young females.

Objectives.– To study the psychological factors mediating the influence of mass media on body satisfaction in young females.

Methods.– A total of 164 females aged 18–30 years underwent a survey regarding frequency and specifics of TV and magazines consumption (hours per week, types of programs and magazines), the needs and desires actualized my mass media, the emotions they feel for the women with ideal body seen on TV and in magazines. Satisfaction with body (form, legs, breast, waist, hips, face, skin, height, total score), health, intelligence, temper, happiness was assessed with visual analogous scales (the difference between the actual and desired), and depression - with Beck's inventory. Multiple regressions were performed for the total body satisfaction score.

Results.– After multi-step regression, the following significant variables influencing body satisfaction were identified: body mass index, feelings of guilt and envy for the women with ideal body translated by mass media, the difference between actual and desired happiness or Beck's score ($R = 0.65$, $P < 0.0001$). Quantity of consumption and types of mass media had no predictive value.

Conclusions.– The negative influence of mass media on body satisfaction in young females is governed by the depressive emotional reappraisal of the perceived media products with feelings of guilt and envy for the women with ideal body.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0126
Characteristics of rural suicide in Romania

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Introduction.– Although suicide is a public health problem in Romania, there are no national studies on complete suicide depending on the home environment of the suicide person.

Objectives.– The objective of this study was to analyze the cases of completed suicide depending on the home environment of the suicidal person.

Methods.– Was used the National Institute of Statistics database on the number of suicides between 2009–2013 and the data was analyzed with the SPSS 14 program.

Results.– Over the period 2009–2013 were registred 12,799 cases of complete suicide, males 84.7%, male/female ratio = 5.5. The annual rate of suicide in the rural area was 15.2/100,000, while in urban area was 8.5/100,000.

In the urban environment, the suicidal methods more used were shooting ($P = 0$, $RR = 17.8982$), narcotics intoxication ($P = 0$, RR = 14.2268), drug intoxication ($P = 0.5012$, $RR = 2.2348$), fall from height ($P = 0$, $RR = 5.2711$), throwing in front of a car or road accident ($P = 0$, $RR = 2.6339$) and use of sharp objects ($P = 0.000433$, $RR = 1.6433$), while voluntary pesticide intoxication ($P = 0.00904$,

$RR = 0.5099$) and hanging ($P = 0$, $RR = 0.9356$) were more frecvently used in rural areas.

Suicidal persons from urban area were more often divorced ($P = 0$), while rural suicidal were more often unmarried ($P = 0.041465$) or married ($P = 0.025775$).

Urban residents chose more often to commit suicide in a health facility ($P = 0$) or in another location ($P = 0$), while rural residents usually commit suicide in their own home ($P = 0$).

Conclusions.– There are statistically significant differences between the characteristics of suicide in urban and rural areas. Knowing these differences can help us develop suicide prevention interventions tailored to vulnerable groups.

Disclosure of interest.– The author has not supplied a conflict of interest statement.

OR0127
Role of dopamine transporter ((DAT)) in alcohol dependence – a genetic association and imaging study

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Introduction.– Alcohol manifests its effect mainly through activation of dopamine or the reward pathway. Dopamine transporter (DAT) is a critical regulator, responsible for the re-uptake of dopamine from the synaptic cleft into the presynaptic neurons. Thus, DAT levels and genetic factors affecting them maybe useful markers in conditions like alcohol dependence (AD).

Objectives.– Genotyping the DAT1 40 bp VNTR and DAT imaging using SPECT-CT in AD subjects.

Methods.– The study group comprised 100 each of male AD patients (DSM IV criteria), recruited from the National Drug Dependence Treatment Centre, AIIMS and controls from the general population. Subjects interviewed using a pre-designed questionnaire and WHO ASSIST tool and 5 mL peripheral blood drawn after informed consent. Genomic DNA isolated was screened for DAT1 40 bp VNTR. SPECT-CT imaging using 99mTc-TRODAT-1 performed to measure striatal DAT levels in 20 AD patients and 20 controls.

Results.– DAT1 genotype frequencies revealed 10 repeat allele (10r) to be the most frequent in our subjects (87.8% controls; 78.2% cases). The 9 repeat (9r) allele was more pronounced in cases (22%) compared to controls (12%) ($P = 0.09$). Correlation of SPECT results and DAT1 genotypes of the 20 AD subjects and controls revealed the patients to have a higher 9r frequency (17.5% cases; 13.2% controls) and significantly reduced DAT availability in the left striatum (0.89 ± 0.41 cases; 1.21 ± 0.34 controls) ($P = 0.02$) and putamen (1.02 ± 0.47 cases; 1.38 ± 0.37 controls) ($P = 0.02$).

Conclusion.– A comparatively higher 9r allele frequency and significantly reduced DAT availability are indicative of diminished dopaminergic functioning in AD patients, suggesting it to be genetically regulated.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0128
Live stream suicide

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Introduction.– On June 2016, according to internetworldstats, 50.1% of the world have access to the Internet. The webcam gained popularity with the video streaming over the Internet with the telecommunications application software (MSN or Skype). The live streaming (transmission or reception of video or audio thought the Internet) has been recently incorporated in websites such as Facebook or Youtube.

Aims.– Carry out an internet search for news about consummate suicides and suicide attempts in live streaming and make characterisation of this population and discuss some strategies to the prevention of this events.

Methods.– A survey of institutional or personal sites was conducted using the Google search site, with the descriptors such as "live", "stream", "webcam", "suicide", "self-injury" and "self-harm". Results restricted between January 2000 and March 2017.

Results.– The survey, conducted between January 1 and March 1, 2017, resulted in a total of 30 cases. Of these, 10 occurred between 2016 and 2017, using the Facebook and Youtube. 21 resulted in consummate suicide and 9 suicide attempts. Sex distribution is 11 women for 19 men, the average age 24 years. The most frequent method was hanging. The United States of America is the country where most news comes out; there are also cases from different countries over the world.

Discussion/conclusions.– We reflect on the impact on this method used to expose suicidal behaviours, the perspective of the transmitter and the viewer. We conclude that a greater focus is needed in this emerging practice in order to develop strategies to the prevention.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0129
Personality traits and genetics as risk factors for suicidality in depressed patients

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Introduction.– The presence of personality traits that mediate the suicide risk is a recurrent theme among the studies that research suicide behaviour (SB). SB is mediated by hereditary dimensions, like personality traits, impulsivity, aggression, independently from the coexisting psychiatric disorder. Our hypothesis is that these personality traits might be an intermediary phenotype between genetics, stress factors and SB.

Objectives.– The current study aims to elaborate a model in order to quantify the suicide risk, based on personality traits, neurobiological and clinical markers.

Methods.– A total of 164 participants (122 diagnosed with a depressive episode and 42 healthy subjects) were included through convenient sampling procedure from the patient population of the IIIrd Psychiatry Clinic of the Cluj County Emergency Hospital. Among the diagnosed subjects, a subgroup of 27 had a history of at least one suicide attempt. Personality traits were assessed by Barratt Impulsiveness Scales-11 (BIS) and Temperament and Character Inventory (TCI-R) and SB through Paykel Suicide Scale (PSS). Also,

these patients were genetically tested for several polymorphisms that influence impulsivity traits, such as *5-HTTLPR* (a polymorphism in the serotonin transporter gene), the Val158Met polymorphism in COMT (Catechol-O-methyltransferase) and Val66Met in Brain-derived neurotrophic factor (*BDNF*) genes.

Results.– There were significant differences between the personality traits, and genetic makeup of the subgroups diagnosed with depressive disorder, with and without documented suicide behaviour.

Conclusions.– Several personality traits, influenced by genetics, might be discriminating elements between patients that eventually commit a suicide attempt and those that do not.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0130

Psychopathological characteristics and adverse childhood events are differentially associated with suicidal ideation and suicidal acts in mood disorders

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Background.– Depression is the most important clinical factor associated with suicidality. Among psychopathological factors, hopelessness is reported most often and was found to be strongly associated with suicidal thoughts, but not attempts. Temperaments, childhood trauma, and aggression have been indicated as risk factors for suicidal acts and might explain the gap between suicidal ideation and suicidal attempt. We tested this hypothesis in a large sample of subjects with mood disorders.

Methods.– We assessed 306 patients with major depressive and bipolar disorders for a large number of clinical characteristics and for hopelessness, temperament, childhood trauma, and aggression. We tested their associations with suicidal ideation and acts using standard univariate/bivariate methods and multivariate logistic regression models.

Results.– Loss of expectations was a risk factor for suicidal ideation. Childhood emotional abuse, severity of depression, and female gender were risk factors for lifetime suicide attempts, whereas hyperthymic temperament was protective. Hyperthymic temperament was protective in committing suicide attempts with respect to only presenting suicidal ideation.

Conclusions.– Findings support the association of hopelessness with suicidal ideation and point to considering not only depression, but also childhood emotional abuse, hyperthymic temperament and gender in suicidal acts.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0131

Novel triple opioid receptors antagonist ondelopran (LY2196044) for alcohol dependence phase Iii study: Female subjects subgroup efficacy and safety analysis

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Ondelopran is a novel potent antagonist/inverse agonist at kappa, mu and delta opioid receptors. Here we present some of the results from Phase III GCP-complied clinical study of ondelopran 125 mg QD in patients with alcohol dependence. The study has completed and analysis of the full dataset of information is ongoing. Here we present efficacy results in subgroup of female patients.

In combination with a psychosocial intervention aimed at reinforcement of motivation for sobriety ondelopran significantly reduced mean daily total alcohol consumption ($P < 0.05$), and the number of heavy drinking days per month ($P < 0.05$) versus placebo. Ondelopran also increased mean percentage of days of abstinence per month to 91.2% (almost complete abstinence) that was by 6.1% higher than in placebo group ($P < 0.01$). The most significant superiority of ondelopran over placebo was found for the assessments of craving with Obsessive-Compulsive Scale ($P < 0.001$) and Visual Analogue Scale ($P < 0.01$). By the end of the study the proportion of patients with improvement in the overall clinical evaluation with CGI-I scale was significantly ($P = 0.01$) higher in ondelopran group (91.6%) than in placebo group (72.5%). CGI-I scale performance index also was significantly ($P < 0.01$) higher in ondelopran group. Ondelopran was well tolerated and safe. Gastrointestinal adverse events were the most frequent in ondelopran group (16.4% if compared to 8.4% in placebo group P < 0.01). These preliminary results suggest ondelopran to be a novel and effective treatment for alcohol dependence.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0132

Adherence to methadone maintenance treatment and associations with violent and non-violent offending: Results from a 17-year longitudinal cohort study of Canadian provincial offenders

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Introduction.– Little is known about the long-term effectiveness of methadone maintenance treatment (MMT) in relation to the risk of violent and non-violent offending.

Objectives.– This study aims to estimate and test the difference in rates of violent and non-violent crime during medicated and non-medicated methadone treatment episodes.

Methods.– The study involved linkage of population level administrative data (health and justice) for all individuals ($n = 14,530$) with a history of conviction and who filled a methadone prescription between January 1, 1998 and March 31, 2015. Rates of violent and non-violent offending during medicated periods were compared with rates during non-medicated periods.

Results.– During the first two years of treatment (≤ 2.0 years), periods in which methadone was dispensed were associated with a 33% lower rate of violent crime [0.67 adjusted hazard ratio (AHR), 95% confidence intervals (CI) (0.59, 0.76)] and a 35% lower rate of non-violent crime [0.65 AHR 95% CI (0.62, 0.69) compared to non-medicated periods. This equates to a risk difference of 3.6 [95% CI (2.6, 4.4)] and 37.2 [95% CI (33.0, 40.4)] fewer violent and non-violent offences per 100 person years (PYs), respectively. Significant but smaller protective effects of dispensed methadone were observed across longer treatment intervals (2.0 to ≤ 5.0 years, 5.0 to ≤ 10.0 years).

Conclusions.– Among a cohort of Canadian offenders, rates of violent and non-violent offending were lower during periods when

individuals were dispensed methadone compared with periods in which they were not dispensed methadone.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0133

The association between act-belong-commit indicators and problem drinking among older irish adults: Findings from a prospective analysis of the Irish longitudinal study on ageing (TILDA)

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The Act-Belong-Commit campaign is the world's first comprehensive, population-wide, community-based program to promote mental health. However, its potential for preventing substance use disorders is unknown. Further, a literature gap is evident concerning behavioral modification strategies to prevent such disorders. The aim of this study was to prospectively assess the association between indicators of the Act-Belong-Commit behavioral domains and the development of problem drinking.

Data from two waves of the Irish Longitudinal Study on Ageing (TILDA) were analyzed. The sample consisted of 3950 adults aged $\geq$ 50 years. A validated scale for problem drinking was used. The number of social/recreational activities engaged in was used as an indicator of Act, social network integration as an indicator of Belong, and frequency of participation in these social/recreational activities as an indicator of Commit. Multivariable logistic regression analyses were conducted to assess associations between baseline indicators of Act-Belong-Commit and the development of problem drinking at two-year follow-up.

Each increase in the number of social/recreational activities (Act) inversely predicted the onset of problem drinking. Similarly, being well integrated into social networks (Belong) was negatively associated with the development of problem drinking. Finally, frequency of participation in social/recreational activities (Commit) also inversely predicted the onset of problem drinking. These associations were apparent regardless of the presence of baseline common mental disorders.

Act-Belong-Commit indicators are shown to be associated with a reduced risk for problem drinking. This lends further support to the Act-Belong-Commit domains and has wide-ranging implications for preventing alcohol use disorders in the aging community.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0134

Schizophrenia and pregnancy

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Objectives.– De-institutionalization and second-generation antipsychotics with less endocrine side-effects have enabled women with schizophrenia spectrum disorders to be more sexually active. However, research focusing on the reproductive health of women suffering from schizophrenia has been scarce.

Methods.– Using the Care Register for Health Care, we identified a national sample of Finnish women who were born between the years 1965 and 1980 and were diagnosed with schizophrenia. For each case, five age- and place-of-birth- matched controls were obtained from the Central Population Register of Finland. They were followed from the day when the disorder was diagnosed and coded in specialized health care until the individual moved abroad, died, or follow-up ended on 31.12.2013. Information about pregnancies was obtained from the Medical Birth Register.

Results.– We identified 1139 singleton pregnancies among exposed women and 4574 among unexposed ones. The exposed women were older and more often single at the end of the pregnancy, their body mass index before pregnancy was higher, and they smoked more often both in the beginning of pregnancy and after the first trimester than unexposed women. Exposed women showed a higher risk of pathologic oral glucose tolerance test, initiation of insulin treatment, and fast fetal growth. Maternal care for (suspected) damage to foetus from alcohol and/or drugs was fortunately rare, but it was more common among exposed women than among unexposed ones.

Conclusions.– Women with schizophrenia exhibit more pregnancy-related health problems and complications than their unexposed counterparts do. Close collaboration between gynecologists, obstetrics and psychiatrists are needed.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0135

Characteristics and risk factors for suicide among Japanese college students

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Suicide is a leading cause of death for college students. The aim of this study was to identify risk factors of suicide among college students to prevent suicide.

Methods.– We conducted a 23-year (from 1989 through 2012 academic year) serial prevalence study of the prevalence and characteristics of death and suicide among 8.2 milion Japanese college students. We analyzed rates of suicide and characterized suicide among this population, focusing on students' sex and psychiatric and academic backgrounds to identify risk factors for suicide.

Results.– Suicide rates increased throughout the 23 years, and suicide was the leading cause of death every year from 1996 onward. Male students, medicine majors, students in the final year of their program, and students who completed extra years of schooling or took academic leaves of absence were at higher risk for suicide. Only 16.4% had received a psychiatric diagnosis and 16.0% had received services through the university health center prior to the suicides. Results suggest the need for a stronger support system for college students, especially those majoring in medicine, and those who have taken leaves of absence or failed classes.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

Further reading:
Uchida C, Uchida M. Characteristics and risk factors for suicide and deaths among college students: a 23-year serial prevalence study of data from 8.2 million Japanese college students. J Clin Psychiatry 2017;78(4):e404–e412
Uchida C, Uchida M. Characteristics and Risk factors for negative academic events: a 27 year serial prevalence study of 9.7 million Japanese college students. Prim Care Companion CNS Disord 2017;19(4):17m02123

OR0136

Relationship between suicidality and thyreotropic axis activity

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Introduction.– Investigation of the relationship between suicidality and the activity of thyreotropic axis is scarce and has yielded conflicting results.

Objectives.– The aim of this study was to examine the correlation between thyroid hormone levels and psychopathology (i.e. different mental disorders) and suicidality.

Method.– A total of 424 adult psychiatric inpatients (81.1% female; mean age 43.52 years) participated in this study. The occurrence of the predominant primary diagnoses were as follows: schizophrenia, schizotypal and delusional disorders (34.2%), mood disorders (29.7%), neurotic, stress-related and somatoform disorders (17.5%), personality disorders (8.3%), organic mental disorders (5.7%), and intentional self-harm (4.7%). Thyroid data was collected from medical records since January 2016 to March 2017.

Results.– Significant differences were obtained across different diagnostic categories (Kruskal–Wallis test) in relation to total T_3 and free T_4 hormones: patients with organic mental disorders had significantly lower values of T_3 hormone compared to other patients; patients with personality disorders had significantly lower values of free T_4 hormone (except when compared to patients with mood disorders), and patients with mood disorders had lower values of free T_4 hormone compared to patients with psychotic disorders, patients with organic mental disorders and those who attempted suicide. Additionally, patients who attempted suicide had lower values of TSH hormone compared to other patients.

Conclusions.– The findings showed different thyroid hormone levels in different mental disorders, including altered values of free T_4 hormone and TSH hormone in suicidal patients. Thus, the results suggest the possibility to determine these hormones as markers of suicidality in psychiatric patients.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0137

Specific alterations in RNA editing blood biomarkers to predict future suicide attempts

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Introduction.– Predicting suicidal behaviors is one of the most complex challenges of daily psychiatric practices. Alterations of RNA editing of neurotransmitter receptors and other proteins have been shown to be involved in etiology of different psychiatric disorders and linked to suicidal behavior.

Objective.– The objective of the present study was to test whether longitudinal measurement of RNA editing profile of disease-relevant blood biomarkers can be used to predict patients at greatest risk of relapse.

Methods.– A clinical study was performed to identify an RNA editing signature in blood of depressed patients with previous history of suicide attempts ($n = 28$) over a 6-month period. Patient's samples were drawn in PAXgene tubes at initial visit and 6 months later and analyzed on Alcediag's proprietary RNA editing platform using NGS. In parallel, clinical evaluations (Hamilton, MADRS and BDI) were performed.

Results.– During follow-up, 8 patients out of 28 have reattempted suicide (RSA). In the 20 patients that did not reattempt suicide (NRSA), the BDI score showed significant improvement during follow up. On the other hand, clinical evaluations in the RSA patients did not show any improvement and even showed worsening of the MADRS score. In addition, all phosphodiesterase 8A (PDE8A) mRNA editing sites showed significant changes in the NRSA patients over time whereas no PDE8A mRNA editing sites were modified in the RSA patients, suggestively signing improvement of their mental state.

Conclusions.– Longitudinal measures of RNA editing biomarkers in blood samples of patients can be useful for predicting future suicide attempts.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

Oral communications 10: Schizophrenia and other psychotic disorders – part II/classification of mental disorders/e-mental health/pain and treatment options

OR0138

Prevalence and predictors of social cohesion and its association with mental health in India

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Introduction.– It is agreed that social cohesion plays a constructive role in the preservation of mental health and well-being. Social cohesion is well-connected phenomena with both vertical and the horizontal interactions among members of society. Methodology-Using the WHO-SAGE wave-1 data, which is a longitudinal and cross-sectional study on a sample of 11,230 adults, aged 18 years and older, this study investigated is there any association between social cohesion and mental health of people in India. Ordered logistic regression analysis has been used to understand the association between mental health and social cohesion. Social interaction, trust, safety, political participation and freedom of expression are used as indicators of social cohesion.

Results.– People those who had high social interaction in the society were 0.80 ($P < 0.001$) times less likely to have mental disorders. Further, People who had high trust in the society were 1.09 ($P < 0.05$) times and who had not any freedom of expression been 1.3 ($P < 0.001$) times more likely to have mental disorders. This study reveals that low social cohesion is significantly associated with poor mental health and vice-versa. Social interaction and freedom of expression are robust indicators, which strongly affect the

mental health. Results indicate that the high social cohesion leads to little mental health problems and increase the mental well-being of people in India.

Conclusions.– This study suggests that social cohesion in the society reduces mental disorders among people and people with high social interaction, trust, political participation and freedom of expression in the society have less mental disorders.

Disclosure of interest.– The author has not supplied a conflict of interest statement.

OR0139

Prevalence and predictors of mental health disorder in India: A cross-sectional study

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Introduction.– The burden of mental illness has significant impacts on health and major social-economic consequences in India. The persistent socio-economic pressures are recognized risks to mental health for individuals and communities.

Methodology.– This study conducted using the WHO-SAGE wave-1 data which is a longitudinal and cross-sectional study on a sample of 11,230 adults aged 18 years and older. The logistic analysis is used to estimate the odds, and correlation matrix and Cronbach's alpha was used to understand the correlation and reliability of mental health symptoms.

Results.– The alpha value represents the acceptable internal consistency, $\alpha = 0.83$. This study indicated that those who were ages 60 years and above were 3.43 ($P < 0.001$) times in Model-I, not currently working 1.56 ($P < 0.001$) times in Model-II, Muslim 1.54 ($P < 0.001$) times more likely to have mental disorders. About half of the population have severe mental disorders and mental illness is increasing with increment in age, and elderly, female and less educated people are more vulnerable than other.

Conclusions.– This study found that there was the severity of mental health problems in the Indian population. Mental health disorder is increasing with age, and older adults are more vulnerable compared to other. Female has the more severe mental disorder as compared to male while people lived in the rural area were suffering from the severe mental disorder. Education became a major determinant of mental disorder, and as educational status has been increasing, mental disorder is decreasing which shows the inverse relationship between them.

Disclosure of interest.– The author has not supplied a conflict of interest statement.

OR0140

Cannabis use and clinical correlates in patients with an at-risk mental state and first episode of psychosis

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Introduction.– Studies on cannabis use of patients with an at-risk mental state (ARMS) for psychosis and first-episode psychosis (FEP) patients have repeatedly found increased prevalence of cannabis consumption compared to healthy controls. There is evidence for an association of cannabis use and (subclinical) psychotic symptoms.

It is suggested that in ARMS patients' cannabis use increases the risk of transition to frank psychosis.

Objectives.– To investigate current cannabis use and its potential associations with clinical correlates in ARMS and FEP patients.

Methods.– Cannabis use was evaluated in 93 ARMS and 108 FEP patients recruited within the prospective Basel Früherkennung von Psychosen (FePsy) study. Positive and negative symptoms were assessed with the BPRS and SANS. Participants were followed for up to 5 years. Data on cannabis consumption of 2162 individuals of the Swiss general population (SGP) were used for comparison. All statistical analyses were adjusted for age and gender.

Results.– Prevalence of current cannabis use was significantly higher in ARMS and FEP patients (26.4%) compared to the SGP sample (4.6%; $\beta = 1.172$, $P < .001$, $OR = 3.23$). ARMS and FEP patients with and without current cannabis use did not differ in regard to positive and negative symptoms. Presence and frequency of current cannabis use was not associated with transition.

Conclusions.– The high prevalence of cannabis use in ARMS and FEP patients indicates the need to integrate specific interventions in the treatment of these usually young patients. More research is needed to further elaborate the relationship of cannabis use and clinical correlates.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0141

Comparison of long-term treatment outcomes in men and women with schizophrenic psychoses over a period of 20 years. Prospective study

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Background.– Numerous studies on the differences in the course of schizophrenic psychoses in men and women produce contradictory results.

Aims.– The aim was to assess the long-term clinical and social outcomes and subjective quality of life among male and female patients over a 20-year period. Group and method:57 patients: 34 (60%) women and 23 (40%) men diagnosed with DSM IV T-R schizophrenia were examined at index hospitalization and 7, 12 and 20 years later. Anamnestic and Katamnestatic Questionnaire, GAF scales, BPRS-LA, social scale in DSM III, A. Lehman's Quality of Life Questionnaire were used.

Results.– Women average at index hospitalization was over 3.5 years later, with a lower incidence of schizoid and schizotypic personality disorders ($P = 0.045$), they functioned better socially compared to men ($P = 0.009$), they had more satisfying relationships($P = 0.008$), 50% started families, while only 17% ($P = 0.014$) men did so, and after the second admission they displayed less severe symptoms($P = 0.045$). At 7, 12 and 20 follow-up no differences were found in any clinical and social outcome. In the subjective opinion of QoL, at 7, 12 and 20 follow-up women scored better than men by over one point, reaching a significant difference after twelve years ($P = 0.50$).

Conclusions.– 1. Differences between sexes in favour of women observed before and at index hospitalization, disappear in long-term observations; 2. After the index hospitalization men are more likely to marry and thus raise their social status; 3. In the subjective

assessment of the QoL, women display higher general satisfaction with life.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0142

Clinical and rehabilitation treatment outcomes of patients with severe schizophrenia in a comprehensive, case managed programme. A 7-year follow-up

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Introduction.– To increase treatment compliance is important to reach clinical and rehabilitation goals in people with severe schizophrenia

Objectives.– To know treatment (clinical and functional) outcomes and variables related of people with severe schizophrenia enrolled in a comprehensive case managed programme.

Methods.– A 7-year prospective, observational study of patients with severe schizophrenia undergoing case managed comprehensive programme in Spain ($n = 200$). Assessment included the Clinical Global Impression severity scale, the Camberwell Assessment of Needs (CAN), the WHO Disability Assessment Schedule (WHO-DAS), reasons for discharge and medications prescribed at the beginning and after 3, 6, 12, 24, 36 and 84 months. Hospital admissions in the previous seven years and during the follow-up were measured.

Results.– CGI at baseline was 5.7 (0.7). After seven years 46% of patients continued treatment (CGI = 4.1 (0.8); $P < 0.01$); 33% were medical discharged (CGI = 3.4(1.6); $P < 0.001$) and continued non intensive treatment in mental health units; the WHO-DAS decreased in the four areas ($P < 0.01$) and also the CAN ($P < 0.01$) in both groups; 8% were voluntary discharges. Eight patients dead during the follow up; three of them committed suicide (1.5%). Hospital admissions decreased significantly ($P < 0.001$). All patients had their own case manager, mainly a nurse. Forty-five percent of all of them were treated with atypical long-acting antipsychotics, with good tolerability and less voluntary discharges.

Conclusions.– Retention of patients with schizophrenia with severe symptoms and impairment in a case managed comprehensive programme was really high and helped to get remarkable clinical and functional improvement. Long-acting medication seemed to be useful in improving treatment adherence.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0143

Effect of lurasidone on cognition in adolescents with schizophrenia: A one-year interim analysis of a 2-year open-label extension study

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Introduction.– Cognitive impairment significantly contributes to the functional impairment associated with schizophrenia.

Objective.–To evaluate the longer-term effects of lurasidone on cognition in children and adolescents with schizophrenia.

Methods.– Patients aged 13–17 years with schizophrenia who completed 6 weeks of double-blind (DB), placebo-controlled treatment with lurasidone were enrolled in a 2-year, open-label study in which patients were continued on lurasidone or switched from placebo to lurasidone. Cognitive function was assessed with the Brief CogState battery, which evaluates four cognitive domains: processing speed (detection task), attention/vigilance (identification task), visual learning (one card learning task), working memory (one back task, speed & accuracy). Based on normative data, an overall cognitive composite Z-score was calculated as the average of the standardized Z-scores for each of the four cognitive domains. These results are from a 52-week interim data analysis.

Results.– A total of 271 patients who completed the 6-week DB study entered the open-label extension study, and 75.6% completed 52 weeks of treatment (mean daily dose, 52.6 mg). The cognitive composite Z-score showed impairment at DB baseline (-1.09). At week 28, overall improvement was observed in the cognitive composite Z-score (mean change, +0.16). For CogState domains, mean change at week 52 in Z-scores was -0.02 for processing speed, 0.00 for attention/vigilance, +0.45 for visual learning, +0.24 for working memory accuracy, and +0.23 for working memory speed.

Conclusions.– In this study of adolescents with schizophrenia, lurasidone was not associated with cognitive impairment after 52 weeks of treatment; improvement was noted in selected cognitive domains.

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Drs. Goldman, Tocco, Pikalov, Deng, Cucchiaro, and Loebel are employees of Sunovion Pharmaceuticals Inc.

OR0144

Aminoacylase-1: A new potential biomarker for schizophrenia/a preliminary study

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Introduction.– Aminoacylase-1 (ACY1) is a cytosolic enzyme that deacylates the α-acylated amino acids. ACY1 is strongly expressed in the human brain. Most individuals with ACY-1 deficiency present with neurological symptoms. Schizophrenia is also known to be a neurodegenerative disorder. Our aim was to investigate a possible correlation between schizoprenia and ACY-1 levels, a neural tissue marker.

Methods.– Overall, 47 acute schizoprenia patients who were diagnosed with DSM-V and 41 healthy controls, both groups between 18–60 years, without chronic diseases were included in this study for a period of 6 months. Serum levels of ACY-1 were measured in both groups. PANSS and the CGI-S were used to evaluate disease activity.

Results.– We found significant differences in serum levels of ACY-1 among the groups. We established that acute schizoprenia patients had significantly lower levels than healthy controls (12.8 + 16.9 vs.

$26.7 + 21.4$; $P < 0.001$). A negative correlation was found between total PANNS positive scores and ACY-1 serum levels. As total PANNS positive scores increased, ACY-1 levels decrased (P: 0.038).

Conclusions.– To our knowledge, this is the first study that investigates serum levels of ACY-1 in patients with schizophrenia. Serum levels of ACY-1 were statistically significantly lower in the patient group. Although there is no study about the relation between ACY-1 and schizophrenia, the results of a study states that, lower ACY-1 was found in Huntington Disease which is described to be a neurodegenerative disease. So it can be assumed that, lower ACY-1 levels can be related to neurodegenerative process in schizophrenia.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0145
Role of orexinergic neuron on ketamine-induced analgesia

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Introduction.– Although ketamine is an anesthetic agent, it is recently used as an antidepressant [1]. In addition, ketamine has also been used as an analgesic [2]. The orexin (OX) system is involved in a variety of physiological processes including pain modulation and modulation of the OX system is a new therapeutic approach to pain control [3]. We previously found the interaction of ketamine with OX system [4].

Objectives.– We have studied role of orexinergic neuron on ketamine-induced analgesia.

Methods.– After approval by our institutional committee on animal research, 16 OX neuron-deficient transgenic (orexin/ataxin-3: OX/AT-3 TG) rats and the wild-type rats weighing 300–400 g were used. Each rat was placed individually on a hot plate maintained at $50\,^{\circ}\text{C}$ to measure the reaction time (cut-off latency: 60 sec), and then the reaction time was measured again after ketamine 15 mg/kg ip. After completion of the hot-plate tests, each rat was decapitated and the contents of noradrenaline and OX-A in the cerebrocortex, hippocampus, hypothalamus and pons were measured.

Results.– The area under the curve(AUC) of hot-plate latency-time after ketamine ip was significantly shorter in OX/AT-3 TG rats than that in the wild-type rats ($P < 0.05$). There was a significant correlation between the AUC and OX-A content in the cerebrocortex, hippocampus and hypothalamus ($P < 0.05$) whilst no correlation between the AUC and noradrenaline contents.

Conclusion.– The present data suggest that OX system may be involved in the mechanism of ketamine-induced analgesia.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

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OR0146
PDE7B, NMBR and EPM2A variants and schizophrenia: A case-control and pharmacogenetics study

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Background.– We investigated phosphodiesterase 7B (PDE7B), neuromedin B receptor (NMBR) and epilepsy progressive myoclonus type 2A (EPM2A) genes in schizophrenia (SCZ). To the best of our knowledge, these genes have been poorly investigated in studies of SCZ.

Methods.– Five hundred and seventy-three SCZ inpatients of Korean ethnicity and 560 healthy controls were genotyped for 2 PDE7B, 3 NMBR and 3 EPM2A polymorphisms. Differences in the allelic and genetic frequencies among healthy subjects and patients were calculated using the χ^2 statistics. Repeated measure ANOVA was used to test possible influences of single-nucleotide polymorphisms on treatment efficacy. In case of positive findings, clinical and demographic variables were added as covariates, in order to investigate possible stratification bias.

Results.– The rs2717 and rs6926279 within the *NMBR* gene and rs702304 and rs2235481 within the *EPM2A* gene were associated with SCZ liability. rs1415744 was also associated with Positive and Negative Symptom Scale negative clinical improvement. The results remained the same after inclusion of the covariates and were partially confirmed in the allelic and haplotype analyses.

Conclusion.– Our preliminary findings suggest a possible role of *NMBR* and *EPM2A* genes in SCZ susceptibility and, for the second one, also in antipsychotic pharmacogenetics. Nonetheless, further research is needed to confirm our findings.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0147
Psychopathy, impulsivity and trait aggression as predisposing factors to violence in schizophrenia and in the general population: A profile analysis

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Introduction.– To identify important predispositions to violence which are not restricted to the illness, violence in schizophrenia must be studied in the context of violent behavior in the general population.

Objective.–To investigate important trait predispositions to violence, including psychopathic and impulsive traits and trait aggression.

Method.– Participants included 40 violent (VS's) and 34 nonviolent (NV's) patients with schizophrenia, 35 healthy controls (HC's) and 35 non-psychotic violent subjects (NPV's). We used subscales of the Psychopathy Checklist (PCL-SV), Buss-Perry Aggression Questionnaire (BPAQ) and Barratt Impulsiveness Scale (BIS-11). History of childhood conduct problems was also assessed.

Results.– The violent groups presented with more severe psychopathy (F = 116.1, df = 3,141, $P < .001$), trait aggressiveness (F = 13.9, df = 3,141, $P < .001$) and impulsivity (F = 8.9, df = 3,141, $P < .001$) than the 2 non-violent groups. We further divided the 40 violent patients into 2 subgroups on the basis of childhood conduct problems; 22 presented with a history of childhood conduct problems (VS-CD),

and 18 without (VS-NCD). We compared these 2 subgroups to each other, to NPV's and HC's. We obtained significantly distinct multivariate profiles of traits for each group (F = 46.2, df = 3, 108, P < .001), consisting of psychopathic traits (PCL-SV Factors 1 and 2), BPAQ Anger, BIS-11 Motor Impulsiveness and Self-Control. NPV's had the profile with the most severe impairments, followed by VS-CD's and then VS-NCD's. All the pairwise differences between profiles were significant (P < .001).

Conclusion.– Specific traits form a core predisposition to violence in the general population and in patients with schizophrenia, particularly in patients with a history of conduct problems. This has important implications for treatment.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0148

Validation of a scale of autonomy in patients with schizophrenia in remission

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Introduction.– During the last decades there's a marked rise of interest towards the questions of social functioning of patients. The most relevant line of research is evaluation of schizophrenia patient's conditions and ability of patients to independent existence (autonomy). The objective of this study was investigating of the construct validity a scale of autonomy.

Method.– A total of 200 patients, 112 men and 88 women (mean age = 39, 03) were assessed. New version of scale of autonomy (SA), comprising six items: activity, productive communication, social network, medical conventionality, care of themselves, social skills, PANSS, NSA, CGI, PSP, EQ-5D were administered.

Results.– The internal consistency: Cronbach's alpha = 0.93. Correlations of all items of the scale with a total score were found (P < 0.001). Convergent validity was demonstrated by relatively high correlations between total score SA and related rating instruments, scales detecting the presence of negative symptoms: N4 ($r = -.506^{**}$), PANSS Neg ($r = -.573^{**}$), CGI Neg ($r = -.573^{**}$) and four items of PSP: self-care($r = -0,545^{**}$); personal and social relationships ($r = -0,526^{**}$), social useful activities ($r = -0,492^{**}$), level of functioning ($r = 0,492^{**}$). Weak or rather weak correlations between AS and psychometric scales, assessing other constructs proved good discriminant validity of AS. Factor analysis separates distinct «autonomy» factor, comprised of all AS items plus several other variables.

Discussion.– SA has high internal consistency and good convergent and discriminant validity. SA has correlations with negative symptoms and several items of PSP scale and meets the basic psychodiagnostic requirements. SA is a new psychometric instrument for assessing one of the most important factors of social adjustment.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0149

Personality functioning and long-term results of treatment in remitted patients with schizophrenia

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Introduction.– Schizophrenia is a complex neurobehavioral disorder. Due to this fact the effect of antipsychotic treatment cannot be attributed only to the biological factors.

Aim.– Determine the role of personality functioning (PF) in treatment outcomes in high compliant patients with schizophrenia.

Method.– A total of 130 patients with schizophrenia with sufficient treatment response were observed for no less than 4 years. PF was determined as the ability of patients to form a hierarchy of values, develop hobbies, have interests beyond the basic needs, live independently, care for important others, establish relations with the family members and outside the family, planning and implementation capacity. The ability to construct mental representation of the disease was assessed as one of the most important manifestations of PF. Three levels of PF were allocated.

Results.– Finally, the group of patients with the same diagnosis, stage of illness at the beginning of the observation, similar treatment, treatment response and good tolerability but different levels of the basic personality functioning fell into three subgroups. The subgroup with the moderate level of PF demonstrated gradually increased improvement both in symptoms severity and social adjustment. In the subgroups with low and high PF improvement in symptoms was not associated with increase of social adjustment.

Conclusions.– The ability of patients to utilize the treatment resource ("pharmacological credit") in social adjustment depends on the level of PF. The patients with the low and high levels due to different reasons took less advantage from this "credit" than the patients with the moderately reduced level

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0150

The effectiveness of the long-acting injections of second generation antipsychotics: A 54-month follow-up study of risperidone long-acting inyection vs paliperidone palmitate one-month formulation

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Introduction.– Risperidone long-acting injection (RLAI) and Paliperidone Palmitate one-month formulation (PP1M) are a valuable strategy for the treatment of Schizophrenia. Long-term follow-up studies are required to assess the effectiveness to preventing relapse.

Objective.– To assess the long-term efficacy of PP1M vs. RLAI in preventing relapse in schizophrenia

Methods.– Overall, 58 patients with schizophrenia (ICD-10) that started treatment with PP1M (30) or RLAI (28). At the beginning and end of a follow-up period of 54 months were performed:
– Positive and Negative Syndrome Scale (PANSS);
– Patient Satisfaction with Medication Questionnaire (PSMQ);
– Percentage of patients who remained relapse free at the end of the study.

Relapse was defined as ≥ 1 of the following: Psychiatric hospitalization, or an increase of 25% from base line in the PANSS total score,) for two consecutive assessments.

Results.– Percentage of patients who remained relapse free at the end of the 54 months was 48% for RLAI and 72% for PP1M. Sixty

percent of patients in RLAI group reported to be "satisfied" or "very satisfied", while 80% of patients in PP1M group reported that. Sixty-five percent of caregivers in RLAI group reported to be "satisfied" or "very satisfied", while 80% of them in PP1M group reported that. *Conclusions.*– We observed a higher percentage of relapse free patients in the PP1M group. PP1M appears to have greater acceptance in both patients and family members than RLAI

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0151

ICD-11 field studies on gender incongruence: Evidence from African, Arab, European and Latin American countries for removing transgender categories from the chapter on mental disorders

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For ICD-11, the WHO's Working Group on Sexual Disorders and Sexual Health recommended moving transgender condition to a more medical chapter, preserving related categories -Gender Incongruence in Adolescence and Adulthood (GIAA) and Gender Incongruence in Childhood (GIC)- in the classification to ensure access to health care.

Objective.– In this symposium we present with ICD-11 field studies intended to evaluate whether distress and dysfunction are more related to social rejection in adult transgender individuals from very diverse countries (GIAA studies); and to evaluate the need for an ICD-11 category of GIC (GIC study).

Method.– In the GIAA studies, 490 transgender adults (103 from Brazil, 72 from France, 28 from Lebanon, 250 from Mexico, and 57 from South Africa) completed a retrospective interview about their experiences of gender incongruence, distress, dysfunction and social rejection. In the GIC study, 12 transgender individuals participated in a qualitative interview to address the consequences of receiving a form of diagnosis of GIC, and the usefulness of the ICD-11 GIC guidelines.

Results.– In all GIAA studies, a high proportion of participants – but not everyone – reported having experienced distress and/or functional impairment, which were predicted by social rejection rather than by marked incongruence. In the GIC study, although diagnoses during childhood were experienced as negative, all participants considered the proposed ICD-11 GIC category as beneficial.

Conclusion.– The GIAA studies support ICD-11 proposal to move transgender condition out of mental disorders chapter, while the GIC study provides some support for retention of the category.
Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0152

A randomized clinical trial of computerized cognitive behavioral training using a smart-toy for enhancing cognitive abilities of 5–7-year old children

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Introduction.– Smart-toys based on 'Internet of Things (IoT)' can be used in many fields such as education and u-mental health care system for various purposes. In this study, the smart-toy (toy-robot) serves to provide appropriate feedback to children's performances on cognitive behavioral tasks via bluetooth.

Objectives.– This study aimed to evaluate the efficacy of a smart tablet-based cognitive behavioral training (CCBT) program using a smart-toy for 5–7 year old children. The program aimed to enhance children's attention (auditory attention, visual attention) and behavioral inhibition (attention shifting, impulse control) abilities.

Methods.– Sixty-four children were randomly assigned to three groups:
– 'training group' for the CCBT, using a smart toy;
– 'comparison group' for an existing CCBT, using a personal computer without smart toys;
– 'waiting group', which was the control group.
Participants in the training group and the comparison group were trained for eight sessions, each spanning 30–40 minutes over four weeks. We assessed participants' cognitive abilities three times:
– pre-training;
– post-training;
– one-month follow-up.

Results.– Both of the training and the comparison groups showed significant improvement in auditory attention, visual attention and impulse control abilities, compared to the waiting group. Especially, the training group showed more prominent and long-lasting training effect on the behavioral inhibition task than did the comparison group.

Conclusions.– This study showed that computerized cognitive behavioral training using a smart-toy is effective for enhancing attention and behavioral inhibition abilities of young children.
Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0153

Safety and effectiveness of lurasidone in adolescents with schizophrenia: A one-year interim analysis of a 2-year open-label extension study

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Introduction.– Lurasidone has demonstrated efficacy and safety in the short-term treatment of schizophrenia in adolescents.

Objective.–To evaluate long-term effectiveness and safety of lurasidone in adolescents with schizophrenia.

Method.– Patients aged 13–17 years with schizophrenia who completed 6 weeks of double-blind (DB), placebo-controlled treatment with lurasidone were enrolled in a 2-year study in which patients continued on (or switched to) open-label lurasidone. We present here the results of an interim analysis at week 52. Efficacy was assessed using the Positive and Negative Syndrome Scale (PANSS).

Result.– A total of 326 patients were randomized to lurasidone (37 or 74 mg/d) or placebo. At week 6, significant improvement was observed for lurasidone vs. placebo in PANSS total score (37 mg/d: −18.6 and 74 mg/d: −18.3 vs. placebo: −10.5; $P < 0.001$ for both comparisons). Overall, 271 patients entered the open-label (OL) study and 69.7% completed 52 weeks of treatment, including 3.3% who discontinued due to lack of efficacy and 8.5% who discontinued due to adverse events. For the combined lurasidone group ($n = 271$), mean change in PANSS total score, from OL baseline was −15.6 at week 52 (observed case analysis), and −10.9 (LOCF-endpoint). During OL treatment, the most common adverse events were headache (21.8%), nausea (11.8%) and anxiety (11.8%). Minimal effects were observed on body weight, lipids, and glycemic indices.

Conclusion.– In adolescents with schizophrenia, long-term treatment with lurasidone was safe and generally well-tolerated, and was associated with continued improvement in symptoms of schizophrenia.

Disclosure of interest.– Dr. Correll reports the following potential conflicts of interest: a. Advisory Board: Alkermes, IntraCellular Therapies, Janssen/J&J, Lundbeck, Neurocrine, Otsuka, Pfizer, Sunovion and Teva b. Consultant: Alkermes, Allergan, the Gerson Lehrman Group, IntraCellular Therapies, Janssen/Johnson and Johnson, LB Pharma, Lundbeck, Medscape, Otsuka, Pfizer, Sunovion, Takeda and Teva. c. Grant or Research Support: Takeda.

Drs. Goldman, Tocco, Pikalov, Deng, Cucchiaro, and Loebel are employees of Sunovion Pharmaceuticals Inc.

Oral communications 11: Schizophrenia and other psychotic disorders – part III/neuroscience in psychiatry part i/old age psychiatry part I/prevention of mental disorders part i/psychopharmacology and pharmacoeconomics

OR0154

Exploring the autonomic correlates of symptoms and functional difficulties in psychosis using wearables

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Background.– Increasingly mobile digital devices are used to assess mental health symptoms. This method uniquely allows to assess illness related phenomena and their impact on people's lives. In people with psychosis autonomic deregulations have been hypothesised to influence symptom intensity and functional difficulties. Here we present the results of two studies using a wearable device measuring physiological parameters alongside a mobile assessment of psychotic symptoms and functioning difficulties.

Method.– Thirty-six people with schizophrenia and 33 healthy controls were assessed for social functioning (Study-1) and psychotic symptoms (Study-2) using a mobile device for six consecutive days at random times. During this period, participants were asked to wear a wrist worn wearable device recording movement, electrodermal activity (EDA) and hart rate variability (HRV). Participants were also assessed with measures of functioning and symptom severity.

Results.– Study-1: Participants with schizophrenia reported being more alone than controls. In people with schizophrenia EDA magnitude while reporting being with strangers was significantly higher. Study-2: When experiencing distressing hallucinations participants with SZ showed reduced HRV and increased EDA magnitude compared to when they reported no distressing hallucination experience. A similar pattern was observed for delusion but not for depression.

Discussion.– Increased physiological arousal alongside reduced HRV is associated with important clinical features of schizophrenia. Portable and wearables devices are acceptable and may become, when further validated, routine means of clinical assessment. These devices can allow regular active and passive clinical information gathering and are promising tools to improve relapse prevention and people's recovery prospect.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0155

First benzodiazepine prescription in relation to onset and duration of untreated illness in schizophrenia, mood and anxiety spectrum disorders

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Introduction.– It is established that the delayed initiation of an effective pharmacotherapy plays a significant role in the overall burden of psychiatric disorders. Often, such conditions are treated with

symptomatic drugs, i.e. benzodiazepines (BZDs), in relation to their rapid onset of action and safety profile.

Objectives.– Our study aimed to assess the influence of treatment with BZDs on the duration of untreated illness (DUI); secondly, we assessed whether other socio-demographic and clinical factors could influence the choice of BZD as first treatment of patients affected by Schizophrenia, Mood and Anxiety spectrum disorders.

Methods.– Study sample consisted of 545 patients. One-way ANOVA for continuous variables and χ^2 test for dichotomous ones were performed for comparison between patients who used BZDs as first treatment (BZD w/) and those who did not (BZD w/o).

Results.– DUI resulted significantly longer in BZD w/vs w/o patients. Moreover, BZDs w/subjects experienced more frequently anxious/depressive symptoms at onset, and less frequently psychotic symptoms. Furthermore, BZDs w/patients more frequently had first therapist contact following a personal decision, while BZDs w/o subjects after receiving others' suggestion. BZDs w/patients were found to seek more frequently psychologists or general practitioners (GP) rather than psychiatrists as first therapists. Finally, BZDs w/subjects experimented more frequently phobias.

Conclusions.– BZDs may delay the overall DUI and their prescription seems to be influenced by specific socio-demographic and clinical factors. Further studies are needed to raise awareness of BZD first prescription.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0156

Clinical staging: Application in stable community-dwelling schizophrenia patients

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Introduction.– During the last two decades, a growing interest for clinical staging has increasingly emerged in psychiatric disease such as Schizophrenia, however most of the studies focused on the early phases of the illness and the transition from prodromal phase to psychosis.

Objectives.– The aim of this study is to apply this clinical staging framework in patients with chronic schizophrenia.

Methods.– The Structural Clinical Interview for DSM-IV was used to confirm the diagnosis of schizophrenia. Patients were assessed using the Positive And Negative Syndrome Scale and Global Assessment of Functioning scale. Depression was measured by the Calgary Depression Rating Scale for Schizophrenia. We performed a cluster analysis using the severity of the illness, number of lifetime episode and functioning as discriminating variables.

Results.– Seven hundred and seventy stable community-dwelling schizophrenia patients from the multicentric FACE-SZ cohort were included. Patients were classified into 5 clinical stages, defined as stages 2A ($n = 89$), 2B ($n = 272$), 3A ($n = 241$), 3B ($n = 112$) and 4 ($n = 56$), ranging from favorable functioning and no symptoms to unremitted illness and poor functioning, according to the Scott et al criteria (Scott et al., 2013). Multivariable analysis of covariance showed that the worst the grade is, the lower the education level, the higher the depressive symptoms, the lower the adherence to medication and the lower the cognitive performances.

Conclusion.– These findings provide further support to the clinical staging model in patients with Schizophrenia. Depressive symptoms seem to have a major contribution for discriminate patients in clinical staging.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0157

Clinical characteristics associated with benzodiazepines' use in mood disorders

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Introduction.– Mood disorders are prevalent and burdensome diseases with a chronic course of illness. More often, especially for mild forms, patients are not treated in psychiatric services but they are managed by general practitioners (GPs). Among different medications, benzodiazepines (BDZ) are not recommended for the treatment of mood disorders, considering the lack of antidepressant effect and long-term side effects.

Objectives.– The present study aims to identify clinical variables related to BDZ use, to better characterize and recognize their misuse.

Methods.– Overall, 304 in- and out-patients with major depressive disorder (MDD), bipolar disorder (BD) and adjustment disorder (AD) were recruited. Their socio-demographical and clinical variables were collected and statistical analysis were conducted to compare patients with BDZ as first treatment (BDZ w/) and those without (BDZ w/o).

Results.– BDZ w/subjects were more frequently affected by AD and less frequently by BD compared to BDZ w/o ones. Moreover, BDZ w/patients reported more often anxious symptoms at onset and referred more frequently to psychologist or GPs rather than a psychiatrist. Furthermore, BDZ w/were less frequently treated as inpatients than BDZ w/o ones.

Conclusions.– The identification of clinical characteristics related to a more frequent use of BZD is necessary to better recognize their misuse. A more cautious prescription of BZD is recommended to prevent long-term side effects, abuse and withdrawal concerns.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0158

Is there an association between theory of mind ability and biological rhythm disturbances in individuals with schizophrenia?

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Introduction.– Theory of mind (ToM) deficits are widely recognized in schizophrenia and not limited to a particular stage of disorder and persist even after the remission. It has been found that desynchronisation of circadian rhythms negatively affects aspects of cognitive functions but there is not much data in the literature about association between biological rhythm disturbances and social cognition domains.

Objectives.– In this study we investigate the relationship between biological rythm disturbances and ToM abilities in patients with schizophrenia.

Methods.– Fifty patients with schizophrenia and 48 healthy paticipants were recruited for the study. ToM was measured with the Reading the Mind in the Eyes Test (RMET). Biological Rhythms Interview of Assessment in Neuropsychiatry (BRIAN), Morningness-Eveningness Questionnaire (MEQ), Pittsburg Sleep Quality Index (PSQ) and Positive and Negative Syndrome Scale (PANSS) were applied.

Results.– In comparition to the control group, the schizophrenia group performed significantly worse on RMET task ($P < 0.001$). PSQ and BRAIN scores were significantly higher and MEQ scores were significantly lower in schizophrenia group ($P < 0.01$). In patient group, BRIAN scores were significantly negatively correlated with RMET scores ($P = 0.02$; $r = -0.34$). There was also a significant possitive correlation between BRIAN scores and PANSS total and subscale scores ($P = 0.001$).

Conclusions.– To our knowledge, this is the first study to investigate the relationship between biological rhythm disturbances and social cognitive functions in individuals with schizophrenia. These results suggest the effect of biological rhythm disturbances on social cognition impairments in schizophrenia.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0159

Impact of childhood trauma on sensory gating in patients with first-episode schizophrenia

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Background.– Childhood trauma (CT) has been found to contribute to the onset of schizophrenia, and auditory sensory gating deficit is a leading endophenotype for schizophrenia, however the association between the CT and sensory gating in first-episode schizophrenia remains an area that has not been explored.

Methods.– Fifty-six patients and 49 age and sex-matched healthy controls were assessed using the Childhood Trauma Questionnaire-Short Form (CTQ-SF) for childhood trauma and Positive and Negative Syndrome Scale (PANSS) for symptoms severity. Sensory gating was tested using the modified paradigm, perceived spatial separation-induced repulse inhibition (PSS PPI) as well as the perceived spatial co-location PPI (PSC PPI or classical PPI).

Results.– Associations between CT, PPI and symptoms were analyzed. Comparing with healthy controls, the patients had significantly higher score on sexual abuse ($t = 2.729$, $P < 0.05$), lower PSS PPI, % (ISI = 120ms and ISI = 60ms) ($t = -3.089$, -4.196, $P < 0.05$). There was significant positive correlation between emotional neglect score, CTQ-SF total and positive symptomatology ($r = 0.366$, $P = 0.005$; $r = 0.456$, $P = 0.036$, respectively). There was negative correlation between PSS PPI, % (ISI = 120 ms) and PANSS positive scale ($r = -0.466$, $P < 0.05$). There was significant negative correlation between emotional abuse, CTQ-SF total and PSC PPI, % (ISI = 60ms) ($r = -0.519$, $P = 0.006$; $r = -0.495$, $P = 0.026$, respectively). Multiple linear regression analyses demonstrated the CTQ-SF total was negatively associated with PSS PPI (ISI = 120 ms) ($P = 0.018$).

Conclusions.– The current study showed that the effects of CT on sensory gating in patients with first-episode schizophrenia, thus we hypothesize that CT may be risk factors to the occurrence of schizophrenia through its effects on sensory gating.

Disclosure of interest.– The author has not supplied a conflict of interest statement.

OR0160

Cognitive profile of healthy siblings of patients with first-episode psychosis as a candidate endophenotype

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Introduction.– Cognitive deficits in psychotic patients can be observed already during prodromal phase. Moreover, cognitive impairments were found in unaffected relatives of patients, as well.

Objectives.– Our study aim was to examine a cognitive profile of healthy siblings of patients with first episode of psychotic disorder and to compare it with the profile of patients and matching healthy subjects.

Methods.– Study sample consisted of 4 groups: (1) patients with first episode of psychosis, (2) – their healthy siblings, (3) control subjects matched according to age and education to patients, (4) controls matched to siblings. All study subjects were tested with a battery of neuropsychological tests measuring memory, executive functions, attention, visual-spatial skills, language skills, and psychomotor speed.

Results.– The total of 84 study subjects were included:
– patients $n = 20$;
– siblings $n = 22$;
– controls to patients $n = 20$;
– controls to siblings $n = 22$, with even sex distribution.

The patients had significantly lower scores than their controls in all cognitive domains, the greatest difference was found in verbal memory ($P = .000$) and abstraction ($P = 0.002$). The siblings performed significantly worse than their controls in abstraction ($P = 0.006$), non-significant trend was also observed in verbal memory. Interestingly, patients and siblings in these two domains did not differ.

Conclusions.– Our findings, cognitive deficits of healthy siblings in abstraction and verbal memory, comparable to those in first-episode patients, suggest that specific cognitive domains can be considered as an endophenotype of psychosis.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0161

Mindfulness based childbirth and parenting: An RCT on effects on stress, depression and biomarkers

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Introduction.– Transition into parenthood is a demanding life phase and exposes becoming parents to vulnerability for depression and stress–postpartum depression is the most common complication after childbearing in Sweden. This in turn is associated with adverse

psychological and physiological outcomes for the infant, of great importance for population health in the long term.

Objectives.– To evaluate the effectiveness of Mindfulness Based Childbirth and Parenting during pregnancy in:

– reducing depression symptoms and perceived stress, from pre-to post-intervention and three months after birth among mothers and partners;

– normalizing levels of inflammatory and stress markers from pre-to post-intervention in the serum of pregnant mothers.

Methods.– Randomized Controlled Trial. In total, 195 participants and their partners have been included in the study. Depression symptoms have been assessed with the Edinburgh Depression Scale and Stress symptoms with the Perceived Stress Scale. Serum samples have been collected from the first 70 pregnant women and have been analyzed using a sensitive radioimmunoassay procedure.

Results.– Final data analyses among all participants, or analyses of serum samples have not yet been conducted, but will be completed in December 2017. Preliminary analyses among the first 87 pregnant women showed a significant within-group reduction of depression symptoms in the intervention group. With regard to perceived stress, no indications of the intervention superiority were found.

Conclusions.– So far, this study has given primary indications of a beneficial effect on depression symptoms from the mindfulness intervention. Full analyses of all data will provide more conclusive results.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0162

The effects of psilocybin on brain EEG activity and connectivity in healthy volunteers – focus on the dynamics of the psychedelic state

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Introduction.– A serotonin 5-HT2A/C agonist, psychedelic drug psilocybin, is gaining attention as a potential therapeutic tool for anxiety and depression. Psilocybin induces desynchronization of the EEG during the peak of its effects, continuous data are lacking.

Objectives.– We focused on the dynamics of changes in neuropsychological parameters, brain activity and connectivity after oral administration of psilocybin.

Methods.– Twenty healthy volunteers (10 M/10F, 28–50yrs) were enrolled in this placebo controlled cross over double blind trial. A standard 19 channel EEG (registered before and 60, 90, 180 and 360 min after psilocybin (0.26 mg/kg) ingestion), brief psychiatric rating scale (BPRS), plasma levels of psilocin were collected several times over the session, a subjective scale "altered scale of consciousness scale (ASCs)" at the end of measurements. Current source density and connectivity were analysed by Low Resolution Brain Electromagnetic Tomography (LORETA).

Results.– Psilocybin induced psychotic-like symptoms, especially changes in perception and thought disturbances, peaking at 90 min after ingestion along with serum psilocin levels. Induced global decrease of the alpha current source density in the occipital cortex was negatively correlated with the intensity of effects. The overall connectivity decreased in the alpha band, but increased in all other frequency bands at peak, however, six hours after ingestion, the effects were inverted.

Conclusions.– The study shows that psilocybin dynamically shifts the brain from one connectivity state at baseline through a peak effect to reach another global connectivity state at the end. This work was supported by grants ED2.1.00/03.0078, LO1611/NPU I, MICR VI20172020056 and PROGRES Q35.

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OR0163

Impact of antipsychotic treatment on cytokine levels in schizophrenia: A meta-analysis

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Background.– Immune system dysfunction is a hypothesis in the psychopathology of schizophrenia but the impact of antipsychotic treatment within this system is not clear. The aim of this meta-analysis was to investigate the impact of antipsychotic treatment on cytokine levels in in vivo studies on schizophrenia.

Methods.– After a systematic database search, original data were extracted with the help of authors. Means and standard deviations were extracted to calculate standardized mean differences (SMD). Cytokine levels were compared in vivo in schizophrenia patients, before and after antipsychotic treatment. Meta-regressions were performed to explore the influence of demographic and clinical variables on cytokine level SMDs.

Results.– Forty-seven studies were included in this meta-analysis. Pro-inflammatory cytokine level decreases were found for IL-1 β levels ($P<0.0001$), IFN-γ ($P=0.01$) and a statistical trend towards a decrease in IL-6 ($P=0.08$) and TNF-α ($P=0.07$) levels. An anti-inflammatory cytokine level increase was found for sTNF-R2 ($P<0.001$) and sIL2-R ($P=0.03$) levels. A meta-regression analysis found a correlation between IL-6 level SMD and positive schizophrenia symptom score SMD before and after treatment ($P=0.01$).

Conclusions.– The present meta-analysis provides evidence that antipsychotic treatment has an anti-inflammatory effect and could normalize immune balance dysfunction in schizophrenia. IL-6 level normalization could be a marker of illness equilibration, and thus used in clinical practice.

Disclosure of interest.– Bruno Romeo, Marine Brunet-Lecomte and Catherine Martelli have no

Amine Benyamina has given talk for Lundbeck, Mylan, Merck-Serono and Bristol-Myers Squibb and member of bord Indivior.

OR0164

Saccadic eye movements in clinical high-risk state for psychosis

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Oculomotor dysfunction is one of the most replicated findings in schizophrenia. We studied saccadic performance in the group of clinical high risk of psychosis individuals (CHR) as a part of schizophrenia continuum. In this study, we have tested saccadic performance in different schizophrenia dimensions, according to the three-syndrome model of schizophrenia. The schizophrenia

patients were divided into three groups based on the sum of the global SAPS and SANS scores: patients with predominantly negative symptoms (NS); positive symptoms (PS) and disorganization symptoms (DS). Horizontal eye movements were recorded by using videonystagmograph. We measured peak velocity, latency and accuracy in prosaccade, antisaccade and predictive saccade tasks as well as error rates in the antisaccade task.

The study included 156 schizophrenia patients, 42 individuals at clinical high risk for psychosis and 61 healthy volunteers.

We found that the error rate in antisaccade task was significantly higher in CHR compared to controls. The performance on antisaccade task in CHR was close to the one of NS and PS groups of schizophrenia patients. The accuracy of reflexive saccade in CHR group was close to the results of NS group.

Latencies of predictive and reflexive saccades were longer in the NS than in controls. PS, DS and CHR did not differ in terms of latencies from controls. In reflexive saccades task accuracies in all schizophrenia groups and CHR group were worse than in controls. Our results support the idea that eye movement alterations are possible markers of clinical high risk of psychosis.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0165

Action-related language impairments in schizophrenia spectrum disorders

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Objectives.– Action fluency deficit has been proposed as a potential endophenotypic marker for schizophrenia but its cognitive and language-related origins have not been examined.
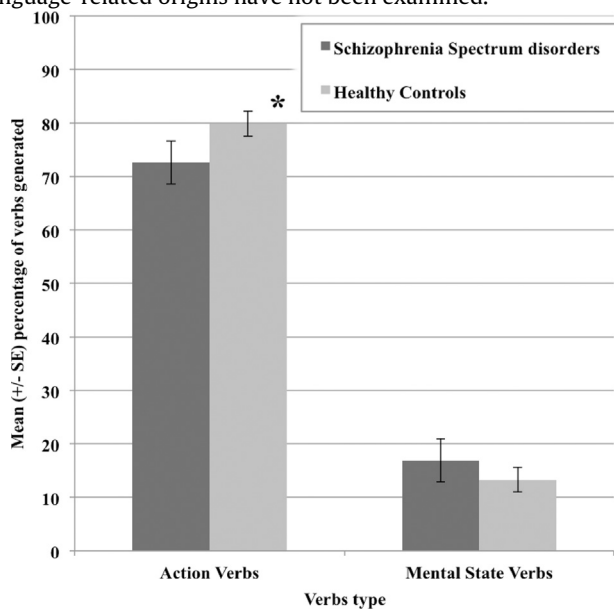

Fig. 1

Methods.– Action fluency task performance was studied in 46 patients with schizophrenia spectrum disorders and 76 healthy controls from the Western Australian Family Study of Schizophrenia. Verb responses ($n = 2219$) were classified as action or mental state verbs, using standard taxonomies. Lexical characteristics of the verbs were evaluated. Participants' clinical symptom, schizotypal personality traits and general cognitive abilities were also examined.

Results.– Independent inter-rater agreement on semantic categorization was high, $k = 0.905$ ($P < 0.001$), 95%CI (0.880,0.930). The proportion of action verbs was significantly lower in patients (Mean = 72.63, $SD = 6.73$) than in controls (Mean = 79.83, $SD = 3.81$); $t(120) = 2.57$; $P = 0.011$; Cohen's $d = -0.470$. However, the proportion of mental state verbs produced by patients (Mean = 16.90, $SD = 13.57$) and controls (Mean = 13.30, $SD = 10.14$) did not differ, $t(120) = 1.67$; $P = 0.099$; Cohen's $d = 0.300$ (Figure 1).

Patients' action verbs were significantly less concrete (more abstract) (Median = 3.93, $IQR = 0.30$) than those produced by controls (Median = 4.03, $IQR = 0.19$); U = 1307.00; z = −2.330; $P = 0.020$; effect size $r = 0.203$, reflecting a lower precision of encoding or reactivation of the sensory, motor and affective information associated with the core verb meaning. Action verbs fluency was positively correlated with memory and intelligence but not with executive function, medication dose or clinical symptoms. Conversely, fluency in action (but not mental state) verbs was negatively correlated with the interpersonal schizotypy traits denoting an increased sense of psychological distance from others.

Conclusion.– Impaired action verb, but intact mental state verb generation points to the neural separability of these processes and specific relationship between action-related language, memory deficits and poor interpersonal functioning in schizophrenia.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0166

The place of VMAT-2 inhibitors for the treatment of tardive dyskinesia: A meta-analysis of randomized controlled trials

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Purpose: To summarize the characteristics, efficacy and safety of VMAT-2 inhibitors used for patients with tardive dyskinesia (TD).

Patients and methods.– Systematic review and meta-analysis.

Results.– Altogether, two acute, 12-week, placebo-controlled trials with deutetrabenzine($n = 413$) dosed at 12–48 mg/day and four acute, 4–6-week, placebo-controlled trials with valbenazine ($n = 486$) dosed at 12.5–100 mg/day were meta-analyzable, without meta-analyzable, high-quality data for tetrabenazine. Regarding reduction in total Abnormal Involuntary Movement Scale (AIMS) scores (primary outcome), both deutetrabenazine ($k = 2$, $n = 413$, standardized mean difference (SMD) = −0.4, 95%CI−0.19, −0.62, $P < 0.001$; weighted mean difference (WMD) = −1.44, 95% CI−0.67, −2.19, $P < 0.001$) and valbenazine ($k = 4$, $n = 421$, SMD = −0.59, 95%CI−0.26, −0.91, $P < 0.001$; WMD = −2.07,95%CI = −1.08, −3.05, $P < 0.001$) significantly outperformed placebo. Results were confirmed regarding responder rates ($\geq 50\%$ AIMS total score reduction; deutetrabenazine: risk ratio (RR) = 2.13 (95%CI = 1.10–4.12, $P = 0.024$, number-needed-to-treat(NNT) = 7, 95%CI = 3–333, $P = 0.046$; valbenazine: $RR = 3.05$, 95%CI = 1.81–5.11, $P < 0.001$, $NNT = 4$, 95%CI 3–6, $P < 0.001$). Less consistent results emerged from patient global impression based response and clinical global impression for deutetrabenazine ($P = 0.15$, $P = 0.088$ respectively), and for clinical global impression change score for valbenazine ($P = 0.67$). Additionally, both deutetrabenazine and valbenazine acute efficacy trials were continued with open-label designs up to 159 (ongoing) and 48 weeks respectively with increased responder rates at endpoints ($P = NA$), and symptom recurrence after valbenazine withdrawal. No increased cumulative or specific

adverse events vs placebo (acute trials), o vs acute phases of the trials (open-label extensions) were reported.

Conclusion.– The two recently FDA-approved VMAT-2 inhibitors, valbenazine and deutetrabenazine, are effective in treating TD, in acute and long-term treatments. No concerns about any increased risk of depression or suicide have arisen in the included stable psychiatric population with TD. No head-to-head comparison among VMAT-2 inhibitors and no high-quality, meta-analyzable data are available for tetrabenazine in TD.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0167
Is stress sensitivity a better marker of risk than ultra high risk (UHR) for psychosis criteria?

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Background.– Increased stress sensitivity has been associated with experiences of childhood adversity and ultra high risk (UHR) for psychosis status (Lardinois et al., 2011). A recent meta-analysis reported that greater stress sensitivity was associated with increased odds for psychotic experiences (DeVylder et al., 2016). There is evidence that stress sensitivity mediates the relationship between adversity and psychotic experiences (Gibson et al., 2014). We sought to explore these relationships in a university student population and include a focus on functioning and academic self-efficacy

Method.– An online survey was completed by 500 university students. The survey included measures of stress sensitivity, depressed mood, wellbeing, functioning (social and academic) and adversity (childhood and current). UHR status was measured by the threshold of the Prodromal Questionnaire-16 (PQ).

Results.– The majority of students were female (81%) and undergraduate (92%) with 102 meeting UHR threshold. Rates of childhood (50% vs 32%, $P < .001$) and current adversity (82% vs 72%, $P < .05$) were significantly higher for the UHR than non UHR participants. The UHR group had significantly higher stress sensitivity ($P < .001$) and decreased functioning and wellbeing. A model exploring the possible predictive value of stress sensitivity for academic self-efficacy, wellbeing and UHR for psychosis will be presented.

Conclusion.– Stress sensitivity offers the opportunity for broad screening of vulnerable groups such as young people in transition periods. Importantly, it avoids the use of potentially stigmatising terms such as psychosis and personality disorder, and thus may have utility in screening for risk for the development of mental health problems.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0168
Fully automated speech-based frontline screening for dementia

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Introduction.– New telemedicine tools for effective frontline screening for dementia are needed. Automatic speech analysis can be a powerful solution to address this need as speech can be analysed via telephone.

Objectives.– To benchmark a fully automated dementia frontline screening based on automatic speech recognition and machine learning classification.

Methods.– A total of 166 elderly people diagnosed with either dementia (D; 79), Mild Cognitive Impairment (MCI; 47) or only subjective memory complaints (SMC; 40), were assessed at the memory clinic at the Institut Claude Pompidou in Nice, France. Within the scope of the Dem@care and ELEMENT projects participants performed a battery of speech-based cognitive tests. Speech was recorded and processed using automatic speech recognition (Figure 1). The experiment for this study is solely based on the recordings of the 60s semantic verbal fluency (SVF). Qualitative SVF features were extracted according to previous work (Linz et. al., 2017; Using Neural Word Embeddings in the Analysis of the Clinical Semantic Verbal Fluency Task). For classification, Support Vector Machines with 10-fold cross validation were used.

Results.– Despite imperfect ASR – mainly misses in SVF correct responses – for the screening scenario (SMC vs. MCI & D) the approach achieves a sensitivity of .99 and a specificity of .74. Inter-group classification results were as follows (sensitivity/specificity): SMC vs. D (.91/.66), SMC vs. MCI (.85/.62) and MCI vs. D (.86/.49).

Conclusion.– The results show high ecological validity of the proposed automatic analysis for frontline screening of dementia. The high sensitivity in the screening scenario underlines its feasibility in telemedicine applications.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0169
Angiotensin-converting-enzyme inhibitors (ACEI) as a repurposed treatment for a unipolar depression: Results of a 20-year follow-up study

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Introduction.– Comorbidity between psychiatric and cardiovascular disorders is a global public health priority. This bidirectional relationship is suggested to exist due to shared functional changes, understanding of which may lead to new or repurposed treat-

ment options for affective disorders. While CNS drug development has been underwhelming with RCTs not providing definitive evidence of antidepressant effectiveness, accumulating preclinical and clinical data consistently indicate the involvement of Angiotensin-Converting-Enzyme Inhibitors (ACEIs) and Angiotensin II Receptor Blockers (ARBs) in mood regulation.

Objectives.– To evaluate the mood-regulating capacity of orally delivered ACEI and ARB, the treatment-diagnosis association was examined using a prospective follow-up setting in the population-based Kuopio Ischemic Heart Disease Risk Factor Study.

Methods.– The study was conducted on a sample of 1774 subjects (920 females, 854 males; age range at baseline: 42–61 years) from Eastern Finland. A hospital discharge diagnosis of unipolar depression was used as outcome variable. Prospective analyses were conducted with the Cox proportional hazards model, adjusted for relevant background variables.

Results.– The risk of unipolar depression diagnosis ($n = 46$) was significantly reduced in ACEI-treated participants ($HR = 0.343$, 95% CI 0.15–0.77, $P = 0.010$), but not in ARB-treated participants ($HR = 0.442$, 95% CI 0.18–1.08, $P = 0.072$).

Conclusion.– ACEI treatment is associated with a statistically significant decreased risk for unipolar depression manifestation. However, our findings may not be generalizable to individuals below middle age.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0170

Prediction of CYP3A metabolic phenotype in patients with ziprasidone by blood concentration measurement

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Background.– With the development of pharmacogenomics in recent years, more and more attention has been paid to the molecular genetic mechanism of pharmacokinetics among different individuals. Gene polymorphisms of drug metabolizing enzymes can affect the retention of drugs in vivo. However, the cost of gene polymorphism of drug metabolizing enzymes determination is high.

Objective.– The aim of this study was to investigate the relationship of CYP3A gene polymorphism and plasma concentration of ziprasidone injection

Methods.– The serum concentration of ziprasidone was determined by two-dimensional high performance liquid chromatography (HPLC) and the distribution proportion of CYP3A gene polymorphism in hospital database was calculated.

Results.– A total of 28 patients of ziprasidone blood concentration results showed that: 14 patients ziprasidone average half-life is 7.92, accounting for 53.57%; 8 patients average half-life is 5.37, accounting for 28.57%; 4 patients average half-life is 2.87, accounting for 14.29%; 1 patients half-life is 1.23, accounting for 3.57%. The CYP3A5 statistical data of 1327 patients in the center showed that the weak metabolic type accounted for 52.60%, the intermediate metabolic type accounted for 40.17%, and the fast metabolic type accounted for 7.23%.

Conclusion.– The metabolic characteristics of ziprasidone in 28 patients were closely related to the *CYP3A5* gene polymorphism in 1327 patients. The plasma concentration could reflect the metabolic type of the patients in some extent.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

Oral communications 12: Eating disorders/migration and mental health of immigrants/euroimaging/neuroscience in psychiatry part II/old age psychiatry part II/prevention of mental disorders part II/quality management

OR0171

The impact of childhood trauma on brain structure and stress response: Differences between first-episode psychosis patients and healthy controls

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Introduction.– The relationship between childhood trauma, brain alterations and dysfunctions of the stress response system, the Hypothalamic-Pituitary-Adrenal axis (HPA), remains unclear in patients with psychosis as well as in healthy population with history of significant abuse in childhood.

Objectives.– Investigate the impact of childhood abue on the brain structure and stress response in individuals with and without psychosis.

Methods.– Initially, a vertex-by-vertex two-way ANCOVA analysis explored between-group differences in cortical thickness related to case (86 first episode psychosis patients; 49 with significant childhood abuse) and control (64; 30 with significant childhood abuse) status, and childhood abuse exposure. Finally a regression model investigated the relationship between Basal Cortisol Production (BCP) and cortical thickness of regions in which a significant association with abuse was identified.

Results.– The right medial-orbital-frontal gyrus and lingual gyrus showed thinning in individuals with childhood abuse (irrespective of being a case) and their cortical thickness negatively correlated with BCP. Furthermore the right cuneus, latero-orbito-frontal gyrus, post-central gyrus, pre-central gyrus, superior-frontal gyrus and inferio-parietal gyrus were thinner in cases and thicker in controls with abuse suggesting an interaction between group (patient/control) and abuse. Thickness of the right cuneus, latero-orbito-frontal gyrus, superiofrontal and the inferio-parietal gyrus negatively correlated with BCP in controls but not in cases.

Conclusions.– Childhood abuse has a long-term effect on the adult brain in areas involved in social adjustment, mood control and drive. Interestingly, this effect is divergent in cases and controls, suggesting a specific vulnerability in individuals who would eventually develop psychosis possibly implying an adaptive mechanism to environmental stress.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0172

The role of spirituality in the care of older people with mental illness

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The role of spirituality in mental health care and older people is becoming increasingly recognised but it remains a misunder-

stood term and assessment and practice remains fragmented in the British NHS. This presentation will focus on spiritually competent practice in health care with an emphasis on mental health in older people. It will also examine the role of training and education in developing spiritually competent practitioners. Spirituality and spiritual competencies for practitioners will be defined. Service delivery that is designed to facilitate person-centred care is central to achieving high quality spiritually competent care for patients. Narrowly-defined spiritual competencies should be combined with compassionate motivation. Even when both are present, fragmented and pressured service delivery denies practitioners the time and opportunities to address the needs of the whole person and makes spiritually competent practice difficult if not impossible to achieve.

The presentation would increase interest and understanding in the three areas including:
– spiritual competencies;
– personal qualities and development of the practitioner;
– opportunities provided by the organisation of care.

As well as sharing ideas, I would hope to foster a discussion on these neglected areas from participants and generate innovative ideas through discussion [1].

Disclosure of interest.– The author has not supplied a conflict of interest statement.

Reference:
[1] Wattis J, Curran S and Rogers M. Spiritually competent practice in healthcare. UK: CRC Press; 2017

OR0173

Brain health complications of diabetes mellitus: Awareness among individuals with diabetes and the general population in Ireland

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Introduction.– Awareness of the brain as vulnerable to adverse effects of diabetes resulting in depression, cognitive impairment and dementia, is growing among the research and clinical community. Such complications can adversely affect quality of life and diabetes outcomes. Research exploring translation of these findings into awareness among individuals with diabetes and the general population is lacking

Objectives.– To identify awareness of potential brain health complications of diabetes among patients and the public via an interviewer administered questionnaire.

Methods.– This observational, cross-sectional survey study recruited adults with diabetes attending a specialist diabetes clinic and representatives of the Irish general population. An interviewer-administered, study specific questionnaire gathered data on respondents' knowledge of:
– brain health complications of diabetes;
– modifiable risk factors for both dementia.

Data was also gathered on socio-demographic, personal health and lifestyle factors. Multivariable logistic regression was undertaken to identify variables independently associated with knowledge.

Results.– A total of 502 adult respondents: 250 in diabetes group (37.2% female, mean age 62.7 ± 14.23 years) and 252 in general population group (51.2% female, mean age 46.5 ± 16.58 years).

Respondent knowledge of (i) potential diabetes complications is outlined in Figure 1.
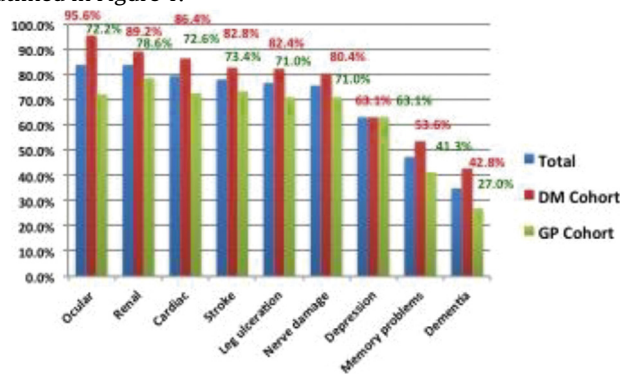

Fig. 1.

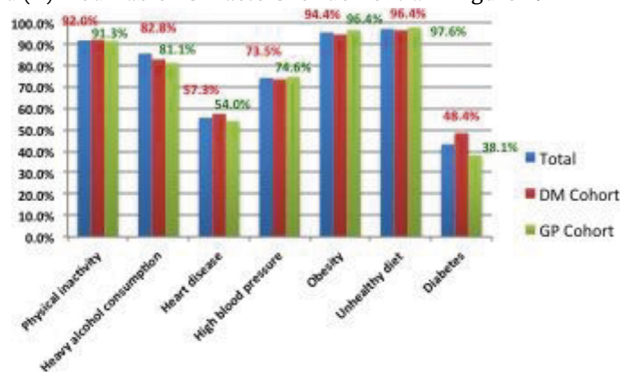and (ii) modifiable risk factors for dementia in Figure 2.

Fig. 2.

Conclusions.– This study demonstrates poor awareness of brain health complications of diabetes and modifiable risk factors for dementia among individuals with diabetes and general population in Ireland. Results suggest a need for expansion of public awareness campaigns to promote awareness of brain health complications of diabetes as part of a life-course approach to dementia prevention.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0174

Differentiating constitutional thinness from anorexia nervosa in DSM 5 era

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Introduction.– Constitutional thinness (CT) is an underweight state characterized by normal menstruations and feeding behaviour. Thinness is the only resemblance between Anorexia Nervosa (AN) and CT. Removal of amenorrhea in the new DSM-5 definition of AN might lead to misdiagnosis between these populations.

Objectives.– The objective was to compare CT, AN and Controls in terms of biological, anthropometric, and psychological markers in order to better distinguish AN from CT subjects

Methods.– This retrospective study conducted from 2000 to 2015 included three groups of young women: 56 CT, 40 restrictive-type AN and 54 controls. Evaluation was made in all groups before any intervention: body composition, nutritional markers, pituitary hormones, bone markers and psychological scores. For every markers, a receiver Operator Characteristics (ROC) curve was calculated to evaluate the accuracy of differentiation between AN and CT.

Results.– For the majority of studied parameters, CT subjects were similar to controls but dramatically different from AN subjects. According to ROC data, while psychological scores were unsuccessful to differentiate AN from CT, except for DEBQ Restrained Eating item, free-T3 and Leptin were strong tools for AN and CT distinction with high sensitivities and specificities and low P values (< 0.0001).

Conclusions.– Taking AN and CT distinction as a major objective, the exclusive use of psychological criteria is not sufficient and should be completed by at least free T3 determination, which is a cheap and an accessible laboratory testing for general practitioners. The final goal is to avoid social stigmatization and excessive useless therapies for CT women.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0175

Hunger feeling in anorexia nervosa and ghrelin plasma level

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Introduction.– Self-food deprivation in Restrictive Anorexia nervosa (AN) contrasts with high but variable orexigenic ghrelin plasma level. As therapy one's aim is to bring the patient to overpass self-starvation in order to gain weight, hunger is one of the keys. Little is known about hunger in AN with very few publications that besides very often confuse hunger feeling, wanting and liking.

Objectives.– Therefore, this study was designed to evaluate simultaneously both hunger feeling and circadian ghrelin plasma level in AN patients compared to controls.

Methods.– Hunger feeling was recorded during 24 hours with a validated analogic visual scale (AVS). Ten AN patients with preserved hunger (ANH+) (AVS final 24 h score ^{3}15 and 3 pre-meal peaks (score 3)), 10 AN patients who lost hunger (ANH−) (AVS final 24 h score $\leq$ 5 and no peak (score $\leq$ 2)), 10 Constitutional Thinness patients (CT) (same BMI, no eating disorder, no undernutrition) and 10 normal-weight women (no eating disorder) as Controls were included. Ghrelin was evaluated at 12 points during the same 24 hours.

Results.– ANH−, CT and controls exhibited the same hunger scores and similar total and acylated ghrelin plasma levels. ANH+ showed significantly higher ghrelin level than the others.

Conclusion.– Ghrelin was high in AN with preserved hunger feeling and similar to controls in AN who lost it. This could modify the standard care in AN by adapting therapy to ghrelin level and promote ghrelin therapy in the group of patients who lost hunger feeling.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0176

Restoring fertility to persistent amenorrheic weight-recovered anorexia nervosa patients: Benefice and risk

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Introduction.– Anorexia nervosa (AN) is characterized by self-starvation-induced undernutrition leading to functional hypothalamic amenorrhea (HA). Weight recovery does not always restore menses despite no clinical and biological undernutrition residual signs. Pulsatile GnRH therapy is currently used to induce physiological ovulation, with effectiveness demonstrated in all types of HA, AN included. However, only few specific studies included AN, mostly with small number and under nourished patients. Besides lots of studies showed the high frequency of eating disorder among women who underwent such therapy.

Objectives.– This study was designed to evaluate hormonal and clinical responses to GnRH pump in two groups of HA patients: persistent amenorrheic weight-recovered AN patients (Rec-AN) and HA from other cause.

Method.– Twenty-two HA without any eating disorders patients and 19 Rec-AN (BMI > 18.5 kg/m^2 without menses recovery) were included in this study. Baseline Estradiol, LH and Progesterone plasma levels and their changes during induction cycles along with ovulation, follicular recruitment, pregnancies rate and eating disorders in AN were evaluated.

Results.– Rec-AN displayed higher basal Estradiol and LH plasma levels after both GnRH injection and during induction cycles compared to HA. Consequently follicular recruitment and ovulation rate were higher in Rec-AN. AN group exhibited 15% of reactivation of eating disorder.

Conclusions.– This study showed great clinical and hormonal response to GnRH therapy in persistent amenorrheic weight-recovered AN, suggesting this treatment is the first one to propose to patient. It raises also the importance to carefully monitor eating disorder and mainly to evaluate psychological state before proceeding.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0177

Exposure to trauma, post traumatic stress disorder and depression symptoms in eritrean refugees living in Ethiopia

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Background.– There is a paucity of research evidence about the mental health of Eritrean refugees.

Objectives.– To identify the differential association between exposure to pre-migration and post-migration trauma with PTSD, depression or both symptoms among Eritrean refugees in Ethiopia.

Methods.– A cross-sectional survey method was employed in this study in which 562 participants were randomly selected from Eritrean refugees living in Mai Aini refugee camp, Ethiopia. The needed information were collected using pre and post-migration living difficulties checklist, Primary Care PTSD screener (PC-PTSD), Center for Epidemiologic Studies Depression Scale (CES-D), Oslo Social Support Scale (OSS-3), Sense of Coherence Scale (Soc-13) and Coping Style Scale. Multiple linear regression, independent sample t-test, and partial correlation were used as methods of statistical analysis.

Results.– PTSD and depression symptoms do not vary across major demographic variables such as: gender, age and marital status. After adjusting for demographic factors, sense of coherence and social support, exposure to pre-migration trauma is significantly associated both with symptoms of PTSD ($\beta = 0.11$, $P < .05$) and depression ($\beta = 0.29$, $P < .001$). Exposure to post−migration trauma is associated with depression ($\beta = 0.21$, $P < .001$). However, sense of coherence ($\beta = -0.17$, $P < .001$) and social support ($\beta = -0.08$, $P < .05$) are inversely associated with PTSD symptoms; sense of coherence ($\beta = -0.32$, $P < .001$) and social support ($\beta = -0.11$, $P < .001$) have also demonstrated inverse association with symptoms of depression.

Conclusions.– While depression is associated with both pre and post-migration trauma, PTSD is associated with pre-migration trauma. Sense of coherence and social support are associated with reduced symptoms.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0178

Cardio-metabolic monitoring in patients on antipsychotics in an inner city New York city adult outpatient clinic: What have we learned so far

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Patients with serious and persistent mental illness (SPMI) have frequent concurrence with heart disease, diabetes, and other cardio metabolic risk factors. Clinical Anti-psychotic Trials of Intervention Effectiveness (CATIE) schizophrenia trial estimated 43 percent prevalence (54% in Females; 36% in Males) of metabolic syndrome in patients with schizophrenia at baseline. This warrants an urgent need of cardio metabolic risk monitoring for early detection and intervention to reduce mortality.

Methods.– Phase one of our study involved retrospective chart review of 2826 patients during the one-year study period (2014–2015). Phase 2 involved interventions including provider education on cardiovascular practice guidelines and improvement in the electronic medical record such as alerts for the provider and the development of a cardio metabolic screening order set. Phase 3 involves pre-post interventional data analysis.

Results.– Baseline data of 2826 patients showed 55% ($n = 1563$) of our patients were on antipsychotics and had a high prevalence of cardio metabolic risk factors such as hypertension (39%), obesity (35%), smoking (34%), diabetes mellitus (25%), hyperlipidemia (25%). Our baseline data results showed that cardio metabolic monitoring was below par as per standard of practice guidelines with following monitoring results: fasting glucose monitored (52%), HbA1c (30%), LDL (37%), Cholesterol (38%), Weight and BMI (67%).

Conclusion.– The baseline data showed that in our routine clinical practice, patients on antipsychotics did not have sufficient cardiometabolic screening. Post intervention review of our data will show the effect of the intervention on cardiometabolic screening and will provide insights on how EMR based strategies can be integrated into out-patient clinics.

Disclosure of interest.– The author has not supplied a conflict of interest statement.

OR0179

National model for mental health work among refugees and asylum seekers in Finland

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Introduction.– Mental health is a crucial part in refugees' overall wellbeing. According to Finnish surveys, migrants with a refugee background are more prone to experience severe symptoms of depression and anxiety compared to the general Finnish population. Traumatic experiences in the former home country and discrimination in Finland explain some of the refugees' mental health problems.

Objectives.– A need existed to improve the mental health work done among refugees and asylum seekers in Finland.

Methods.– Information on existing problems and good practices and treatment models was gathered in 2016–2017 in several ways: qualitative interviews of professionals ($n = 157$) and refugees ($n = 32$) were conducted all over the country and service levels, literature was reviewed, and seminars were held and participated. The PALOMA model for refugees' better mental health was built in 2017 with a large expert group, also including refugees, and implemented in 2018.

Results.– The PALOMA model for refugees' mental health is targeted for professionals on different levels of administration and contexts. The model covers the whole field of mental health work from preventive work outside of health and social services (e.g. school, police, etc.) to primary and specialized care of health and social services. The PALOMA model gives detailed recommendations for prevention, recognition and treatment of mental health problems among refugees and asylum seekers in Finland.

Conclusions.– Concrete recommendations of the PALOMA model enable the professionals to promote mental health and improve services in a culturally sensitive way. As a result, refugees' mental health and overall wellbeing will be improved.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0180

Building a prognosis model for anorexia nervosa: A machine learning approach

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Background.– Anorexia nervosa has the highest mortality rate of all psychiatric disorders, with approximately 50% of individuals devel-

oping a severe and enduring form of illness. Low weight is a major concern and weight restoration is a common goal for inpatient treatment. However, the degree of weight gain varies considerably across individuals and at present it is unclear what factors contribute to this variability.

Objectives.– An exploratory study to examine predictors of change in BMI following inpatient treatment.

Methods.– The sample consisted of 292 patients admitted to the inpatient eating disorder unit at South London and Maudsley NHS Foundation Trust between 2004 and 2016. Three domains of predictors were considered: (i) demographic characteristics, (ii) clinical history prior to admission and (iii) clinical features on admission including eating psychopathology. Elastic net regularized regression with nested cross-validation was used to optimise the prognosis model.

Results.– A combination of demographic and clinical variables explained 13.6% of variance in BMI change following treatment. As expected, the strongest predictors were those related to weight (BMI on admission) and severity of illness (previous hospital admissions and the use of voluntary admissions). Interestingly, social factors (living with others) and ethnicity (Asians) also emerged as important predictors.

Conclusion.– Our findings support the notion that easily accessible demographic and clinical variables can explain a proportion of therapeutic response to inpatient treatment for anorexia nervosa. Machine learning can be a useful method to identify factors that contribute to poor treatment response and can potentially be developed into a decision-support tool for clinicians.

OR0181
Automated analysis of verbal fluency ability for detection of cognitive impairment in elderly people

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Introduction.– Verbal fluency (VF) tests are commonly used assessments of cognitive functioning. Due to time constraints, clinicians usually measure task performance manually only by the total number of correct words and errors.

Objectives.– To investigate whether automated analysis of semantic measures such as the amount of clusters and switches could be useful for clinical assessment.

Methods.– Overall, 179 older persons performing the VF tests were recorded from which 90 were diagnosed with dementia, 47 were diagnosed with Mild cognitive impairment (MCI) and 42 were healthy controls (HC). Participants were given 60s to name as many animals as they can. All performances have been recorded and transcribed. Speech signal processing techniques and automatic speech recognition for computation of semantic clusters/chains

were applied and compared to manual annotations. Automatically extracted features were tested in their power to correctly distinguish between these groups.

Results.– We found that the automatically extracted information from the speech recordings is as reliable as manual annotations with a correlation of 0.89 for word count, 0.92 for cluster size and 0.92 for the amount of switches. Classifiers based on automatic extracted features outperformed with 73.6% accuracy between HC and MCI those trained with manual annotations with an accuracy of only 71.3%.

Conclusions.– Our results demonstrate the feasibility of using automated semantic analytics and the additional value of vocal features, for the assessment and monitoring of cognitive impairment in elderly people through VF tests. This time saving automated tool could provide clinicians with reliable data immediately, based on non-invasive, simple and low-cost methods.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0182
The effectiveness of psychosocial interventions for survivors of natural disasters: A systematic review

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Introduction.– Natural disasters are becoming increasingly more common, with significant psychosocial impact on survivors, that can lead to psychosocial disorders and chronic psychopathology. Effectiveness of currently available interventions is uncertain, although the evidence-base is emerging with more primary studies evaluating these, and which remains to be synthesized.

Objective.– To identify, critically appraise and synthesize the current evidence base on the effectiveness of psychosocial interventions in preventing or treating PTSD, MDD and/or GAD in adult and child survivors of natural disasters.

Methods.– Guided by a protocol, a systematic search of eight international electronic databases, other grey literature databases and relevant websites, as well as bibliographic and citation searching of eligible articles was done. Papers meeting the specific inclusion criteria underwent quality assessment using the Downs and Black checklist. The extracted data was analysed by way of narrative synthesis.

Results.– Searches returned 3777 papers where 31 met the criteria for inclusion. Two papers were obtained through bibliographic and citation searching. Methodological quality of most papers was fair, and evaluated psychological interventions. All studies, reported post-intervention reductions in symptom scores for PTSD, depression and anxiety and where assessed, reduced diagnosis of PTSD and MDD. Statistically significant results were seen in 22 studies. However, three studies demonstrated that the evaluated interventions may not have been very beneficial.

Conclusions.– The overall positive results suggest that psychosocial interventions are favourable over no interventions. Yet, heterogeneity and methodological shortcomings of the current evidence-base makes it difficult to draw definite conclusions. Further rigorously conducted research in this area is needed.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0183

Alcohol use and dependence among older adults in canadian home care: Is it getting better or worse over time?

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Introduction.– The risk-relationship between alcohol consumption and poor mental health has been well established. The objective of this study was to examine alcohol use and mental health among older adults receiving home care (HC) services in Canada, with the goal of informing mental health promotion policy and practice.

Methods.– Canadian HC data were retrieved from the Home Care Reporting System (HCRS) database. Information in the HCRS is based on the Resident Assessment Instrument–Home Care (RAI-HC), an assessment tool used to identify the strengths, preferences and needs of HC clients. The sample included HC clients across five provinces, aged 60 years and older assessed with the RAI-HC between 2004 and 2014 ($n = 692,353$). The main outcome measure was alcohol consumption and dependence (i.e. alcohol use), measured with two items:

– the person's alcohol consumption concerns others;

– needing a drink first thing in the morning.

Descriptive and multivariate analyses were performed.

Results.– There was a slow and steady increase in rates of alcohol use over time. In total, alcohol use was present in 19.0 cases/1000 Canadian HC clients. These clients were younger on average, aged 60 to 74 years and more likely male. Main drivers of alcohol use included smoking ($OR = 5.17$, CI: 4.96–5.40), younger age ($OR = 2.11$, CI: 1.99–2.24), and depressive symptoms ($OR = 1.63$, CI: 1.55–1.72). Social involvement and medication use lowered odds of alcohol use.

Conclusion.– These findings provide evidence for policy and practice surrounding alcohol use and mental health promotion in the Canadian home care sector.

Disclosure of interest.– The author has not supplied a conflict of interest statement.

OR0184

Adult attachment styles and cortisol awakening response in eating disorders

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Introduction.– Adverse early experiences are considered a major risk factor for Eating Disorders (EDs). Repeated interactions with caregivers in childhood affect emotion regulation development. Therefore, Adult Attachment Styles (AAS) may be associated with an altered stress response through differences in subjective feelings of distress and in physiological responses, including the Hypothalamic-Pituitary-Adrenal (HPA) axis functioning. A dysregulation of HPA axis activity as a function of AAS has been found in healthy women but it has never been investigated in people with EDs.

Objectives.– This study aimed to explore the possible association between AAS and HPA axis activity, as assessed by the saliva Cortisol Awakening Response (CAR) in ED patients.

Methods.– Overall, 78 ED patients (43 with AN, 35 with BN) were recruited. Participants filled in the Experiences in Close Relationships (ECR) questionnaire in order to assess the AAS. Then they were instructed to collect saliva sample at awakening and 15, 30 and 60 minutes after awakening, in order to measure cortisol levels.

Results.– A three-way ANOVA with repeated measures showed a statistically significant effect for AAS and for the interaction between AAS and time. Indeed, people with avoidant AAS exhibited a CAR significantly higher than those with secure AAS with a different time pattern.

Conclusions.– These findings indicate that AAS, but not the ED categorical diagnosis, influence the CAR in EDs. This would confirm that early life experiences might modulate not only affect regulation strategies but also stress systems response. Overall, our study suggests the importance to focus on attachment issues in the assessment of ED pathophysiology.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0185

An analysis of pharmaceutical interventions in a psychiatric hospital: A 5-month retrospective study

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Introduction and objectives.– Analysis and validation of hospital prescriptions are issued by our pharmacy which has developed an initiative to register these pharmaceuticals interventions (PI) on the SFPC website (French Society of Clinical Pharmacy). The aim of this study is to characterize possible areas of improvement in the prescription validation process.

Methods.– A prospective 20-week study (April–September 2017) was conducted in order to collect pharmaceutical interventions, which included the following informations: drug involved, type of problem, type and results of intervention (accepted/not accepted/not described).

Results.– A total of 261 PI were recorded (27% of the total drug prescriptions). Dose adjustment account for 43% of the interventions, drug interactions for 41%, repositories non compliance for 10%. Seventy-nine percent of the involved drugs were psychotropic drugs, mainly neuroleptics (90%). General PI acceptance by prescribers was 34%. This low PI acceptance is mainly due to the lack or answers with cardiac problems. Excluding this type of intervention, general PI acceptance reach 46%. Eighty-eight percent of the interventions were considered to have a significant clinical impact. Four PI were considered to have been able to avoid a vital damage. One hundred and ninety-five PI (75%) have a positive economic impact, 96% were coded as positive for organizational impact.

Conclusion.– This analysis of pharmacist's interventions allow to characterize the drugs involved, the low rate of acceptance of our interventions. It constitute supports to achieve improvement and adequacy between pharmacists and prescribers in order to increase the acceptance of PIs by prescribers. This could be used as indicator of pharmacist's performance.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0186

Social cognition as a hub between creative thinking and affective-cognitive dysfunction in subjects with traits of the psychotic spectrum

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Social cognitive processes seem to be at core of behavioral and cognitive impairments in mental disorders including schizophrenia, affective disorders, autism spectrum disorders and frontotemporal degeneration. Besides, social cognition modulation goes beyond of those aspects as it has been reported that theory of mind is also involved in the generation and modulation of creative thinking.

Assuming a double inference, namely social cognitive processes involved in cognitive alterations of mental disorders, and the role of social cognition in creative thinking, we explored the extent in which social cognition serves as a link between pscyhotic spectrum and creative thinking, a classical link still not fully understood. Against this background, we run two studies exploring this relationship. In the first study a group of 60 subjects, we have used a more general and subjective methodology for exploring the link between personality traits, creative thinking and theory of mind by using standardized scales. In a second study, a group of 60 subjects participated in more objective measures of the aforementioned dimenssions including experimental paradigms and standardized scales focus in subjects with traits of the psychotic spectrum.

Those results support the relevance of social cognitive processes as a point of convergence between behavioral and cognitive dysfunctions mental disorder and in generating creative thinking. Results were also discussed to the light of importance of social cognition as a resource to produce creative ways of facing daily life challenges even in conditions where behavior, cognition and autonomy are sensibly affected as is the case of mental disorders.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0187

Higher cortical dendrite density in patients with bipolar disorder undergoing lithium therapy

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Background.– Neurotrophic properties of lithium have been suggested but its effects at a microstructural scale are largely unknown in humans. Our aim was to in vivo assess grey matter ultrastructure in patients with BD undergoing lithium therapy.

Methods.– We included 28 patients with BD. All subjects had an MRI examination including 3 shells diffusion acquisition (30 directions at $b = 200$ mm/s^2, 60 directions at $b = 1500$ mm/s^2 and 60 directions at $b = 2700$ mm/s^2) with an isotropic resolution of 1.25 mm^3 and a millimetric 3DT1 acquisition. Intracellular fraction was estimated using an in-house MCMC algorithm (Microscopist software, Neurospin) based on the Neurite Orientation Dispersion and Density Imaging model. T1 anatomical segmentations with FreeSurfer 5.0 were used to investigate intracellular fraction in grey matter regions of interest. Means between groups were compared using linear models after adjustment for age and gender.

Results.– We found higher intracellular fraction values in the left frontal and left parietal cortices in patients with BD taking lithium medication when compared those without lithium treatment ($P = 0.045$ and $P = 0.039$, Bonferroni corrected), reflecting a higher dendritic density in these two cortical regions.

Discussion.– This study reports for the first time ultrastructural differences in grey matter in patients with BD. Considering our data, lithium may expand dendritic ramifications in the frontal and parietal cortices in accordance with animal studies. Further work is needed to investigate longitudinally the temporal dynamics of microstructural changes associated with lithium in bipolar patients.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0188

A randomised sham-controlled feasibility trial of repetitive transcranial magnetic stimulation in outpatients with severe and enduring anorexia nervosa

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Introduction.– Anorexia nervosa (AN) is a disabling and deadly disorder. Treatment innovations are needed, especially for those with severe and enduring illness (SE-AN). Repetitive transcranial magnetic stimulation (rTMS) is a noninvasive brain stimulation method which has shown promise in AN and other eating disorders.

Objectives.– The aim of the present study was to conduct a randomised controlled double-blind feasibility trial in adult outpatients with SE-AN and previous unsuccessful treatment, comparing real rTMS with sham treatment, as an add-on to treatment-as-usual (TAU).

Methods.– Thirty-four participants with SE-AN (mean illness duration 14 years) were allocated by chance to receive 20 sessions of either real or sham high frequency rTMS in addition to their usual treatment. A range of outcomes (body mass index, eating disorders symptoms, mood, quality of life) were assessed at pre-treatment, post-treatment (1 month post-randomisation) and follow-up (4 months post-randomisation). We also asked participants about their experience of this treatment.

Results.– Two patients were withdrawn for safety reasons post-randomisation, 32 started and 30 completed treatment and all research visits. There were small group differences in BMI and eating disorder symptoms at both post-treatment and follow-up. At 4 months post-randomisation, there were between-group differences in depression, stress and obsessive compulsive symptoms of medium to large effect size, favouring real rTMS over sham. rTMS was well tolerated and considered to be an acceptable treatment.

Conclusions.– This study provides evidence for the therapeutic potential of rTMS in adults with SE-AN. It also supports the need for future larger-scale studies.

Disclosure of interest.– The authors have not supplied a conflict of interest statement.

OR0189
Perception and satisfaction of patients versus staffs in psychiatry wards

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Introduction.– Patients and staffs experience different aspects of work environment in psychiatry wards, although they spend time in the same place, and it is lead to several difficulties in relationship between patients and staff.

Objective.– Evaluate the perception and satisfaction of patients versus staffs in three psychiatric wards in Tehran.

Methods.– A total of 219 participants (patients and staffs) in three hospitals were evaluated using Ward Atmosphere Scale (WAS), Working Environment Scale (WES-10), Moos and Verona Service Satisfaction Scale- 32 (VSSS) questionnaires.

Results.– Overall, 217 participants including 121 patients (55.2%), 58 staffs (26.4%) (Nurses and assistant nurses) and 38 doctors (17.3%) (psychiatrist and residents) were evaluated. The highest mean score in WAS for patients was in order and organization (0.57 ± 0.13) and for staffs was in anger and aggressive behavior (0.58 ± 0.13) items, moreover the lowest mean score in patients and staffs was in autonomy. The mean scores for patients regarding order and organization, staff control and clarity items were higher than staffs and in other items the staffs scored higher than patients. Involvement with therapy strongly correlated with Verona (+0.75). MOOS showed direct significant correlation with self-realization and indirect significant correlation with nervousness, conflict and work load in WES-10.

Conclusion.– Staff and patients perceive the treatment environment differently, moreover staff consider ward atmosphere more suitable than patients, but staff satisfaction did not correlate with their perception from treatment environment.

Keywords: Ward Atmosphere Scale (WAS), Verona Service Satisfaction Scale-32 (VSSS), Work environment and job satisfaction (WES-10), Patient and staff satisfaction

Disclosure of interest.– The author has not supplied a conflict of interest statement.

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Effects of maternal stress during different gestational periods on the emotion development in adult rat offspring

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Prenatal stress (PS) is associated with deficits of emotions in adult offspring. However, the critical timing of the impairment is little known. So we studied the effect of single-prolonged stress (SPS) at three different periods during the first (PS1), third (PS3) and first plus third (PS1-3) of pregnancy on depression-like behavior. The Sprague-Dawley pregnant rats were exposed to SPS on gestational day 7,15 or 7–15.SPS contains immobilization for 2 h, forced swim for 20 min in 24 C water, and loss of consciousness by diethyl ether. The offspring were grown to adulthood and forced swim test (FST) and sucrose intake (anhedonia) were performed. In the anhedonia, there was a significant effect among PS (F $= 57.552$, $P = 0.000$), but sex (F $= 0.000$, $P = 0.993$) was no significant effect. PS3 offspring were reductive on anhedonia than control while PS1 inductive in anhedonia compared to the control group. In the FST, there was a significant effect of PS (F $= 17.287$, $P = 0.000$) and sex (F $= 4.745$, $P = 0.033$) on time spent immobile. PS3 females spending more time than PS3 males. PS3 females were immobile for longer than control female while PS1 and PS1-3 shorter than control. In males, PS1 and PS1-3 males were immobile for shorter than control male. PS has the effects on depression-like behavior in adult offspring. PS3 offspring increased depression-like behavior, while PS1 offspring decreased depression-like behavior. Females were more depress. These results suggested that the time window of the PS and the sex of the offspring were critical to determine the outcome.

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