

## Posters, Monday, 6 March 2006

### Poster session 2: Alcoholism and addiction

#### P1

Tobacco and heroin—the beginning and the end

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It is well recognized that in approximately 80% of patients tobacco addiction is comorbid with another addictions, with the majority of research focusing on the relationship between the nicotine and alcohol. However, the relationship between nicotine and heroin dependence is far less investigated.

The aim of this study was to elucidate the relationship between the nicotine and heroin dependency, by retrospective chart analysis of 300 heroin addicts consecutively admitted for treatment during 2005 to the Institute for Addictions, Belgrade, Serbia and Montenegro.

The sample consisted of 300 adults of both sexes (264 women and 36 men); age range between 16 and 42 years (mean 22.4 years). Ninety-nine percent of patients were diagnosed with comorbid nicotine and heroin addiction for large majority of patients, tobacco was the first psychoactive substance they started to use, at the age of 14.8 years. Tobacco use proceeding on average 2 years start of another substance abuse. Another substance was cannabis, mostly. Period between first cigarette and first heroin use was 4.5 years, approximately. At the start of treatment for heroin addiction, all patients had severe tobacco addiction (>25 cigarettes per day).

As it appears that relationship between tobacco and heroin dependence is more serious than the one between tobacco and alcohol, it deserves further investigation and elucidation.

#### P2

Rehabilitative-psychotherapeutic group treatment for cocaine-addicted patients, in combination with other psychiatric therapies: securing a best compliance to the therapy

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Cocaine-addicted patients under psychiatric therapies present high drop-out rates and high frequency in relapsing while attending the treatments, this is a major obstacle for the planning of specific therapeutic programs.

Within the Day Hospital of Psychiatry at the Agostino Gemelli Catholic University Hospital we propose a rehabilitative-psychotherapeutic treatment combining group aid sessions together with different psychiatric therapies (neuropsychopharmacological, psychotherapeutic in individual sessions, both therapies joined).

Aims of the treatment are:

- preventing patients from relapsing to drug use;
- securing the compliance;
- optimizing future treatments;
- improving the quality of life.

The group offers sessions of 1 hour and half, twice a week.

Sessions are held in turn by a counsellor on addiction, applying the Twelve-Steps Minnesota Program and a psychodynamic psychotherapist. The group is open, each participant is entitled to attend 20 continuative sessions and can renew the access to the treatment.

Within a year 25 patients attended to the treatment. A drop-out of 28% (seven patients) has been recorded. Between the 18 remaining patients having completed the treatment: 39% (seven patients) relapsed into the use of the drug at least once during the program; 83% (15 patients) state an improvement in the quality of life; 100% (18 patients) continue attending a psychiatric treatment.

Between the 18 patients:

- 11 (61%) attend individual psychotherapy (five together with psychopharmacological treatment);
- five (28%) have renewed their access to the group;
- one (6%) begun another group treatment;
- one (6%) joined a therapeutic community.

These results show the usefulness of such integrated treatment.

#### P3

An analysis of psychological dynamics activated by a specific rehabilitative-psychotherapeutic group treatment for cocaine-addicted patients

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A year of experience of a group-therapy based on the Minnesota Twelve Steps Program, modified by the équipe working in the Day Hospital of Drug Addiction at Agostino Gemelli Policlinic in Rome, has lead to a remarkable therapeutic result.

Within 1 year: 18 patients of the group have successfully concluded the treatment continuing other psychiatric therapies; 15 have stated an improvement in the quality of life, 7 have not ended the program.

Aspects that we considered decisive for this therapeutic success have been:

- the relationships in the group, which provided a retentive, supportive, expressive and revisional function, in opposition to the toxicomanic patterns of group connection, typical to drug-addicted patients;
- the "open-group" modality: the entry of new patients stimulated the circularity of rules and functions and allowed an useful revision, especially analysing the relapses that occurred within the treatment;
- a constant optimization of the dynamic balance, made possible by the fact that patients share a common symptomatic spectrum, thus a common level of symbolization.

Synergy between two different approaches used by the counsellor and the psychotherapist (cognitive-behavioural and psychodynamic, respectively) allowed:

- a better control in the guidance;
- the revision and redefinition of the behavioural aspects;
- a stimulating show up between individuals;
- a better introspection and, for some cases, a positive emotional catharsis.

#### P4

Analysis of the recovery course of drug addicted outpatients treated by Minnesota model in a Day Hospital

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The present study evaluates the achievement of a specific objective defined by Minnesota Model: the continuation on a recovery program after intensive treatment. Twenty-three drug addicted outpatients were treated in Day Hospital by the Drug Addiction Unit of a University General Hospital. The treatment consisted in a preliminary phase of five sessions of detoxification followed by 20 rehabilitation sessions divided into 10 orientated group sessions led by counsellor on addiction and 10 group psychotherapy sessions held by psychotherapists. All 23 patients completed treatment.

A month after the end of treatment, patients were interviewed to find out how many of them were participating in self help groups (Narcotics Anonymous) or in other individual or group support sessions and how many instead had stopped their recovery program.

The collected data show that more than a half (n. 12, 52.17%) of the patients continued on the rehabilitation course set by Minnesota Model, specifically three patients (13.04%) engaged individual or group support sessions, nine patients (39.13%) joined Narcotics Anonymous groups, 11 patients (47.82%) stopped their recovery course.

We therefore may conclude that the integrated approach, typical of Minnesota Model, seems to have a positive effect in helping patients to accept their disorder and favours involvement and commitment to the long path that leads to recovery.

#### P5

Correlation of opium and hashish addictions in Siberia and in Far East

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In the area of Siberia and Far East, state specialized institutions have documented dependence on all known substances.

Opium addiction is prevalent around the area, however, a distinct distinguishing the local formations with high values of intense indices and lower ones is pursued. So, to the former all areas of West Siberia and allied areas of East Siberia (Krasnoyarsky Krai and Irkutsk District), in Transbaikalia and Yakutiya level of documented sick rate is by 1.5 times lower and in Far East—by 3.5 times.

Cannaboid dependence through the areas of Siberia and Far East to significant extent differs from the above mentioned prevalence of opioid dependence. A peculiar place of Republic Tyva should be noticed, here prevalence of that dependence among the population is the highest one in Russia: officially it has been documented nearly in 3% of the population. In addition to Republic Tuva, only two territories of Far East have high indices of cannaboid dependence, in other territories of Siberia and Far East values of this magnitude are by 1.8 and more times lower.

Thus, if the opium dependence the highest prevalence has found in western areas of Siberia, so cannaboid dependence to major extent is typical for Transbaikalia and North-East and partially for Far East. It may be considered that regarding territorial prevalence these drug dependences have an opposite vector of meridian direction "west-east".

#### P6

Treatment-seeking gamblers and parkinson's disease: case reports

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**Background and aim:** Several case reports suggest that a pro-dopaminergic treatment for Parkinson's disease (PD) might induce a pattern of pathological gambling (PG) behaviour.

We investigate the chronological relationship between PD and diagnosis of PG within treatment-seeking gamblers of a Swiss specialized outpatient clinic.

**Method:** From 174 consecutively admitted pathological gamblers observed between November 2001 and October 2004, we identified four patients with PD.

Patients were assessed according to standardized medical record of the Department of Psychiatry. These include socio-demographic characteristics, past gaming behaviours and gambling-treatment modalities as well as the evolution of PD and the pro-dopaminergic medication history.

**Results and discussion:** All four patients developed PG after the onset of PD treatment. This confirms the hypothesis that compulsive behaviour might be induced by the pro-dopaminergic treatment.

However, the relation between PD and PG appears complex: three patients described a period of chronic exposure to slot-machines or electronic lotteries several years before and after onset of pro-dopaminergic treatment, with occasional or regular gambling, but without a compulsive component. Confounders such as psychosocial factors or increase in accessibility of gambling opportunities may account for these findings. In one patient, PG appeared suddenly without any previous gaming behaviour after the onset of medication. Despite a high motivation to treatment, we failed in delivering a gambling specific cognitive therapy.

In conclusion, our case series confirm that pro-dopaminergic treatment can induce PG behaviour, but maybe more in "at risk" groups. These patients pose specific treatment challenges.

**P7**

Microwave resonance therapy in withdrawal syndrome in associated forms of alcoholism

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**Objective:** To identify the efficacy of microwave resonance therapy (MRT) of withdrawal syndrome (WS) in alcoholism associated with exogenous-organic brain impairment (EOBI) hindering the active pharmacotherapy of pathological bent because of development of the therapeutic resistance.

**Material and methods:** During an open randomized original investigation of 58 patients of the second stage of alcoholism with comorbid EOBI admitted for treatment for WS (F10.3) of middle degree of severity, randomly the group (1) has been selected of 32 patients, to whom at informed consent only MRT was conducted against the background of traditional detoxification without psychopharmacotherapy. In the standardized comparative group (2) to 26 patients only traditional therapy has been conducted. Clinical monitoring of MRT efficacy included assessment of WS manifestations (CGI-I). Thymoanaleptic effects of MRT were assessed according to 50% of reduction of the sum of scores of HAM-D (17) and HAM-A scales. Indices of rating scales were documented at the stage of screening (1), assessment at baseline (2), at days 3 and 7 of the therapy (third and fourth visits, respectively).

**Results of investigation:** With MRT the clinical stopping of neurovegetative and anxiety disorders for 48 hours occurred. At the third visit reliably better than in control complete reduction of cardiovascular, myofascial and gastrointestinal disorders has been revealed. MRT sedative action has been revealed immediately during the session.

**Conclusion:** MRT provides effective reduction of basic WS manifestations (first of all, neurovegetative and anxiety, then myofascial, cardiovascular, gastrointestinal, dissonic, depressive ones) in alcoholism with comorbid EOBI of the traumatic genesis.

**P8**

Mood and cognitive variability in women with alcohol abuse problems

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**Objective:** To determine whether women with alcohol abuse problems ( $n = 22$ ) show:

1. Higher mood variability (MV) than student controls ( $n = 22$ ).
2. Whether mood variability is associated with attention variability.

**Method:** Twenty-two women with alcohol abuse during the third week of residential addiction treatment completed the MINI Interview and Conners' Continuous Performance Test (CPT). All subjects completed a diary with four Visual Analogue Scales (VAS) for depressed, anxious, angry, high moods twice a day for 7 days. They also completed rating scales for depression, anxiety, hypomania and the TEMPS-A questionnaire. Attention variability was determined from response-speed-variability of the CPT, and mood variability from the VAS mean square successive difference.

**Results:** Subjects showed high diagnostic comorbidity and scored higher on the mood rating scales. Subjects did not differ from controls on the Mean VAS scales, but they showed more mood variability on depressed, anxious and angry scales. Depressed, anxious or high mood variability was correlated with Sustain Attention response-speed-variability and Sustain Attention response-speed-consistency.

**Conclusion:** Women with alcohol abuse problems show higher variability of negative moods than controls. The correlation between mood and attention variability suggests an innate difficulty with regulation.

**References**

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**P9**

Evolution of personality traits among alcoholic patients in recovery

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**Background:** The prevalence of personality disorders among alcoholic patients is about 11–78% (Movalli, 96). The authors aim to know the predominant personality traits among this population and its evolution after treatment.

**Methods:** For this purpose we have designed a study with two arms (transversal and longitudinal) and interviewed alcoholic patients attending the unit for alcoholic recovery in Coimbra. They answered the EPI (Eisenck Personality Inventory) at three moments along their treatment: at admission, at discharge and 3 weeks and 1 year after discharge (the last one being the transversal arm).

**Conclusions:** The authors concluded that alcoholic patients quote higher in the neuroticism dimension and lower in the extroversion dimension when compared with controls. The evolution of this pattern is similar to the scores found for Portuguese population (Vaz Serra, 80).

**P10**

Drug induced headache—patients' psychiatric profile

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**Background:** Headaches are a frequent symptom in Psychiatry and Neurology.

Empirically we believe that many of our patients abuse medication in order to relief this pain.

Up to 40–70% of patients seeking care at headache or pain clinics are thought to be suffering from Drug Induced Headache. This is probably a rather common problem, but it is under-recognized by doctors.

It occurs in those with a primary headache disorder who use immediate-relief medications often in excessive quantities, and it may be accompanied by anxiety and depression.

**Aim:** To characterize patients with previous hospitalizations due to Drug Induced Headache in a Neurology Department and to compare personality traits and depressive symptoms of patients with and without current drug abuse.

**Material/methods:** The authors reviewed the clinical records of the patients hospitalized in the Neurology Department between 1997 and 2002 with the diagnosis of Drug Induced Headache. All the patients that could be contacted ( $n = 21$ ) were assessed through a clinical interview and two standardized scales—Beck Depression Scale and Eysenck Personality Inventory.

**Results:** Eighty-six percent of the patients were female and the mean age was 53.2 years. Ninety percent referred maintenance of headaches and 48% maintained the drug abuse.

Sixty-two percent had depression criteria on the Beck Depression Scale and the average result for neuroticism was 10.56 for those who maintained the drug abuse, 70% were depressed and a value of 17.9 was obtained on neuroticism.

**Conclusions:** Patients who maintain drug abuse have a higher percentage of depressive symptoms and higher values of neuroticism.

## P11

Alcoholism and depression

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**Background:** The correlation between alcoholism and depression is well known: 98% of alcoholic patients quote for major depression at any time of disease (Miller, 95). The co morbidity of these two entities may worsen the severity and prognostic of alcoholic disease. Alcoholic patients who are also depressed are at higher risk for committing suicide.

**Aims and methods:** The author's aim was to evaluate depressive symptoms and its evolution in alcoholic patients under recovery. We have used Beck questionnaire and we have applied this scale to 109 patients at three moments: at admission in the unit and at discharge (longitudinal arm) and 1 year after discharge (transversal arm).

**Conclusions:** Depressive symptoms are prominent in the initial phase of treatment. After 1 year of abstinence the pattern found was similar to the control population.

## P12

Efficacy of trazodone in relapse prevention on alcohol dependence

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**Objectives:** To evaluate the efficacy of trazodone in relapse prevention on alcohol dependence.

**Methods:** Hundred patients, aged 18–65 years, diagnosed with alcohol dependence by DSM IV criteria and inclusion in the 4 types of alcoholism (Lesch) who completed the treatment standard of alcohol detoxification. In the II—period of treatment 50 patients were treated with trazodone and 50 did not receive any medication. Both groups benefited of psychotherapy.

The dose of trazodone was flexible from 150 to 300 mg/day for 1 year of study.

Patient's state was evaluated every month on 15 min with psychiatric interview.

A somatic screening consisting in ECG, blood pressure, pulse and weight was performed.

**Results:** Percentage abstinent days from alcohol was more increased on the patients with trazodone in comparison with patients who did not receive any medication.

The number of relapses with hospitalization was significantly reduced on the patients with trazodone in comparison with patients who did not receive any medication.

The most important results were reported on the patients who received trazodone and diagnosed with I and II types on alcoholism.

No severe adverse events were recorded.

**Conclusions:** The results of this investigation demonstrate the efficacy of Trazodone in relapse prevention on alcohol dependence.

## P13

An outline for DSM-IV cultural formulation adapted for Sweden: clinical experience from a substance abuse treatment context in Stockholm

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**Background and aim:** Though ordinarily associated with use in general psychiatry with ethnic minority populations in the United States and Canada, the presentation highlights the possibilities of using such a clinical tool with ethnic majority populations as well, in this case in Northern Europe, especially with under-researched patient populations. The specific aim of the study was to test the clinical usability and diagnostic utility of a Swedish adaptation of the Outline for Cultural Formulation from DSM-IV for use in a substance abuse treatment context.

**Method:** A culturally-adapted version of the Outline for Cultural Formulation from DSM-IV was used within a specialized out-patient treatment unit for women with substance abuse problems, especially alcohol, in Stockholm. The population was primarily of ethnic Swedish background. A comparison of the case material of 20 clinical cases was undertaken, where half included this method as part of the intake and diagnostic process.

**Results:** In terms of Department and quality of material related to the intake process and diagnosis, the use of this method permitted specific access to the patient's interpretative system, including her drinking patterns and rituals, as well as her perceived closeness or distance to existing cultural norms. Such a clinical tool maximized access to needed information that both complements and goes beyond available standardized instruments and diagnostic procedures.

**Conclusion:** The processes of overall psycho-social assessment and diagnosis are enhanced by this cultural analysis tool. As a result, the clinical work is better informed, enhanced, and likely to be more effective.

## P14

Rehabilitative supporting groups for drug addicts' recovery

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Rehabilitative groups for drug addicts activated in our structure follow the Narcotics Anonymous' principles but involve the presence of a conductor-therapist. As in self-help groups, the relationship between patient and therapist provides for the group as a third subject, unlike classical psychotherapeutic groups based on a relation between two subjects (conductor-users). The group's immediate purpose is to provide a psychological containment to the patients, allowing them to face up to detoxification and increasing their motivation for recovery; later, after detoxification, the aim becomes the maintenance of abstinence, focusing on the users' psychological resources and creating a connection with external structures (therapeutic communities, N.A. groups, psychotherapists etc) for long term treatment.

Sessions are daily held. Most patients are heroin addicts and poly-drug abusers undergoing detoxification, their number usually varies from 10 to 20; each patient can participate to up to ten sessions. Three

conductors (two former drug addicts and a psychotherapist) take turns, three psychologists attend as silent observers.

Patients who have regularly frequented our groups for 2 weeks at least and who have not had relapses during the detoxification change from a behavioural point of view (stop using, life-style changes) and from a cognitive point of view (admission of the unmanageability of drugs, acknowledgment of their own dependence, shouldering the responsibilities).

### P15

Atypical neuroleptics in treatment of heroine withdrawal syndrome

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**Objective:** The first phase in treatment of heroin addicts is detoxification which involves symptomatic control of withdrawal symptoms. This requires the administration of the combination of analgesics, anxiolytics, hypnotics, psychostabilisers, antiemetics, antidiarrhoeics and parenteral fluids. Also, neuroleptics are considered to be useful in managing opiate withdrawal syndrome. The efficiency of Leponex, as an atypical neuroleptic, has been observed among heroin addicts in single blind controlled study.

**Method:** Sixty patients were divided into two groups: All patients were given the standard symptomatic therapy but patients from the control group were given Leponex in addition. All the patients were interviewed every morning in order to see if there were any withdrawal symptoms and with regard to results therapy was modified.

**Results:** Anxiety, restlessness and insomnia were observed to occur significantly less often in patients receiving Leponex. Moreover, the quantity of additional drugs, like anxiolytics and psychostabilisers has been reduced.

**Conclusion:** Leponex was observed to be relatively safe and effective as adjuvant therapy for inpatients in the detoxifications program.

### P16

Social exclusion and outcomes of mentally ill patients with alcohol or drug abuse: findings from the Pan-London Assertive Outreach Study (PLAO)

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This paper investigates the relationship between social exclusion and outcomes of mentally ill patients with alcohol or drug abuse problems receiving assertive outreach treatment in London, UK. Analysis was conducted on data collected for the "Pan-London Assertive Outreach Study (PLAO)", a prospective follow-up study. The sample comprised of 580 patients from 24 teams. Data were collected using clinician-rated scales of alcohol and drug abuse in the last 6 months before baseline. Outcomes—voluntary and compulsorily hospitalisation—were assessed over a 9-month follow-up period. The analysis showed that the 6-month prevalence of substance abuse was 29%. Social exclusion factors were significantly associated with substance abuse. Cluster analysis identified a group of patients with substance abuse (cluster 1) who suffer from social exclusion and forensic problems ( $n = 77$ , 15.8%), and had poorer outcomes than the rest of the patients (cluster 2) in terms of voluntary (52% vs. 36%, respectively) and compulsorily (39% vs. 22%, respectively) hospitalisation. All patients in cluster 1 had a history of arrests in the last 2 years and the majority were physically violent in the last 2 years. Patients in cluster 1 were significantly more likely than those in Cluster 2 to have had a history of street homelessness over the last 2 years, and to have abused alcohol or drugs. The data suggests the

presence of a distinct group of patients in assertive outreach teams whose treatment requires social inclusion and forensic expertise and may be better delivered by more specialised teams.

### P17

Codependency: personality traits and clinical features in a sample of AI-Anon attending subjects

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**Introduction:** The codependency model is one of the most commonly used theoretical frameworks adopted by counselors who work with partners or children of problem drinkers in the US. In an attempt to address the fragmentation associated with the lack of consensus on definition, we tried to characterize this construct focusing on personality traits and clinical features.

**Methods:** Thirty-two subjects regularly attending AI-Anon meetings were evaluated through the following instruments: the Structured Clinical Interview for DSM-IV-TR (SCID I, SCID II); the Temperament and Character Inventory (TCI); the Symptom Checklist-90-R (SCL-90-R); the Holyoake Codependency Index (HCI). Pearson's correlations and Student T were the statistical procedures employed.

**Results:** The HCI total score was negatively correlated ( $P < 0.01$ ) with the SCL-90 total score (GSI – Global Severity Index), and with the symptom subscales for obsessive-compulsive ( $P < 0.05$ ), depression ( $P < 0.0001$ ), interpersonal sensitivity ( $P < 0.005$ ), anxiety ( $P < 0.05$ ), psychoticism ( $P < 0.01$ ), and with the TCI C3 subscale. A positive correlation ( $P < 0.05$ ) was found with the SCL-90 Positive Symptom Distress Index (PSDI), and with the S3 TCI subscale. The group of subjects not reporting any Axis II disorder resulted to score significantly lower ( $P < 0.05$ ) on the HCI score with respect to subjects with an Axis II comorbidity; the HCI subscale for External Focus showed the same trend ( $P = 0.005$ ).

**Discussion:** Our data show that the codependency model is an autonomous construct, not preferentially correlated to any specific state or trait dimension. The presence of a comorbid psychopathological condition seems to represent a "protective" factor towards the development of a codependency condition.

### P18

Evaluation of group psychotherapy of adolescents from alcoholics families

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**Objectives:** The study aims to evaluate effects of group psychotherapy on adolescents from alcoholics families, by monitoring changes in their social-psychiatric characteristics, in family cohesion and resilience.

**Method:** The sample of adolescents 11–18 years of age ( $n = 350$ ) was selected in the period 2000–2004 in Belgrade. They were divided into four groups: group of adolescents from alcoholics families who underwent group psychotherapy and three controls (adolescents from alcoholics families who did not undergo group psychotherapy and two group adolescents of general population with or without alcoholism in family). Following instruments were used: Children of alcoholics Screening Test-CAST 6, Adolescents Resilience Assessment Scale-ARAS, Youth Self-Report-YSR, Self-Report Family Inventory-

SFI. Instruments were administered in the beginning and after of group psychotherapy.

**Results:** The results obtained in the beginning of the study confirmed our hypotheses that social-psychiatric features with significant tendency toward pathological are more present in adolescents from alcoholic families as compared to adolescents without family alcoholism. Family cohesion was stronger in alcoholics families, while resilience was the same in all adolescents sampled. After group psychotherapy, adolescents from alcoholics families have reduced avoidance, anxiety, depression, social problems, attention problems and improved their school results. Family cohesion and resilience have improved; however, they still did not level with their peers without family alcoholism.

**Keywords:** adolescents; family; group psychotherapy; evaluation; family cohesion; resilience.

## P19

Psychosis and alcohol: a case report

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**Introduction:** Alcoholism is often associated with psychiatric disorders, and sometimes we have not the understanding about the physiopathologic mechanism. The psychotic disorders associated at alcoholism are diverse. Bleuler defined someone of them, for example the chronic jealousy delusion and the alcoholic paranoia.

**Objectives:** To explore the relation between alcohol and psychotic disorders in clinical practice.

**Method:** We have done a bibliographical revision in actual publications and classical texts about “psychosis” and “alcohol”. A clinical case of a patient is exposed, with psychotic symptoms of recent apparition in a abusive consumer of alcohol since its youth, discussing the possible diagnoses for this clinical presentation.

**Results:** With a differential diagnosis (DSM-IV-TR), based on the scientific literature revised, and biological and neuropsychological test, we concluded the next diagnoses: Alcohol Abuse (F10.1), Alcohol Dependence (F10.2), Residual Psychotic Disorder and Psychotic Disorder of Late Beginning induced by Alcohol or Psychotropic Drugs (F10.7).

**Conclusions:** Alcohol is an etiologic factor in many psychiatric illnesses, but it is difficult to establish the causality. This diagnosis could be complicated with the actual diagnosis classification.

## P20

Psychiatric comorbidity of L- and D/L-methadone maintained patients—prevalence, additional abuse of drugs, addictive substance-related behaviour and gender

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**Objective:** Differentiation of L- and D/L-methadone maintained patients and additional heroin other substance abuse and gender in relationship to psychiatric comorbidity in a first explorative study.

**Method:** Sixty methadone razemate (D/L) or L-methadone treated patients in maintenance therapy were interviewed with a questionnaire based on the EuropASI, and comorbidity was assessed using the Mini-DIPS.

**Results:** 51.7% of subjects (75% male) had a comorbid axis-I disorder, among these anxiety- (36.7%) and affective disorders (30%) were seen most frequently with a higher prevalence in female addicts ( $P = 0.05$ ). Among the affective disorders dysthymia had the highest prevalence (23.4%). In axis-I-comorbid addicts a trend to earlier onset of regular substance consumption was found ( $P = 0.09$ ). Furthermore, they tended to have a higher abuse of benzodiazepines, alcohol, cannabis, and cocaine, but not of heroin, and received a significantly lower D/L-methadone ( $P < 0.05$ ) and L-methadone dose (not significant) than non-comorbid patients. The duration of maintenance treatment showed an inverse relationship to frequency of additional heroin intake ( $P < 0.01$ ). Patients with additional heroin intake received a lower L- but not D/L-methadone dosage ( $P < 0.05$ ).

**Conclusions:** Higher intake of additional heroin seems not to be correlated with comorbid anxiety- and depressive disorders. However benzodiazepines, alcohol, and cannabis tended to be abused more frequently in axis-I comorbid individuals. In the lower and middle dosage range L-, but not D/L- methadone seems to be more effective in reducing additional heroin abuse. Higher dosages of D/L-methadone (and L-methadone) seem to decrease axis-I comorbidity.

## P21

The influence of volume intake on craving during alcohol withdrawal

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**Background:** In a previous investigation we found an association between alcohol craving and the amount of consumed beer, in contrast to wine or spirits consumption [1]. Aim of the present study was to study a possible influence of volume intake on alcohol craving, in contrast to ethanol intake.

**Method:** We studied 197 patients (158 men, 39 women) suffering from alcohol-dependency (ICD-10) during alcohol withdrawal. The Obsessive Compulsive Drinking Scale (OCDS) was used to assess craving (day 0 and day 7). The total daily volume intake in litres of all consumed alcoholic beverages (independently of their alcohol percentage) and the daily ethanol intake in grams was taken in a structured interview.

**Results:** In male patients we found no significant association between the total volume intake and alcohol craving using Spearman's correlation ( $r = 0.33$ ;  $P < 0.001$ ;  $N = 158$ ). Using general linear models, we found a significant association of the total daily volume intake with craving ( $F = 6.426$ ,  $P = 0.012$ ), but not for the daily ethanol intake. Female patients showed no significant associations.

**Conclusion:** Our results strengthens the hypothesis that changes in the volume regulating mechanisms (possibly including dysregulation of vasopressin and ANP) influences the pathophysiology of alcohol craving [2].

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**P22**

## Molecular heterosis in metamphetamine abusers

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**Introduction:** The aim of our study was to assess whether the COMT Val158Met genetic background of the patients dependent on metamphetamine is related to their non-abstinence in a 1-year follow-up. We expected a less favourable therapeutic outcome in the Val/Val homozygotes, because the Val/Val homozygosity leads via increased COMT activity to a hypodopaminergic state in the brain frontal lobe, and thus fosters a self-stimulation of dopaminergic pathways by metamphetamine.

**Methods:** We examined the COMT gene Val158Met polymorphism and a self-reported 1-year abstinence in a group of 31 (women  $N = 8$ ) Czech Caucasian metamphetamine abusers at the average age of  $23.8 \pm 4.0$  years. Ten patients (women  $N = 5$ ) proclaimed a complete abstinence from metamphetamine.

**Results:** The abstinent did not differ significantly from the non-abstinent as for average age or gender distribution. Counterintuitively, non-abstinence was significantly ( $P = 0.046$ , Fisher's Exact Test) associated with the heterozygous Val/Met genotype. The allele frequencies were not significantly different between the two study subgroups.

**Discussion:** The case when subjects heterozygous for a specific genetic polymorphism show a significantly greater or lesser effect for a phenotypic trait than subjects homozygous for either allele was described by Comings as molecular heterosis. Three explanations were proposed—an inverted U-shaped response curve, a hidden ethnic stratification of the sample, or a greater fitness in heterozygotes. Molecular heterosis emphasizes examination of genotype frequencies in genetic association studies. The fact that molecular heterosis can be ethnic-, gender- and phenotype-specific should be kept in mind while designing future research.

**P23**

Does chronic alcoholism cause intellect damage and deterioration of cognitive functions?

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Alcoholism is a serious medical problem. Mental performance decreases under the influence of alcohol impact directly proportional to consumed dose.

The aim of our study was to show, if chronic alcoholism cause intellect damage and deterioration of cognitive functions.

**Methods:** Two-year follow-up included 22 patients, at the average age of 47, with the average length of drinking alcohol for 10.45 years /from 2 to 20 years/ and the average length of abstinence for 6.6 months / from 2 to 24 months/.

**Tests we used:** Medical history, ROR, WMT,Grasi TO, BGT,PM, Figure, DOPEN, Baum test.

**Results:** Examination of IQ has shown intelligence about average in 11 patients, better average in 6 patients, average in 4 patients and borderline intelligence, mild mental deficiency only in one patient.

The examination of cognitive abilities has confirmed deterioration in cognitive abilities in half of the patients-11 observed patients/partial deterioration of cognitive abilities, reversible with manifestation of confabulation in two patients, mild and moderate organic deterioration of cognitive abilities in six patients and moderate deterioration of cognitive abilities in three patients. Eleven patients were without the signs of deterioration of cognitive abilities.

**Conclusion:** Our observation have confirmed the knowledge from abroad about the fact, that neuropsychiatric examinations expose mild and moderate cognitive deficit.

**P24**

Female heroin users: the contribution of an addicted partner

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One of the services offered by the Counseling Center for the Combating Drug Abuse of Ioannina is an outpatient individual therapeutic program for addicted persons.

Among the female heroin abusers who refer to this program there is a large group of women who have a common characteristic of great importance. The initiation of drug use and the development of dependence from heroin are closely related with the presence of a substance using partner.

Specifically, there was no use at all or only occasional substance use before their relationship with the substance using partner. After starting the relationship, one can notice a rapid involvement in substance use and then an early entry to heroin use and dependence. For the vast majority of them, heroin is the first drug they have ever tried. As for the age spectrum of these users, they are either adolescents or young adults. Furthermore, for almost all of them the most important reason for involving in this relationship is to help their partners stop drug abuse and seek therapeutic help.

Finally, the interruption of this relationship is the strongest predictor of treatment success, especially if there is a supportive family environment.

**P25**

Alcohol craving questionnaire (ACQ): a new clinical instrument based on three factors

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**Background:** Craving for alcohol is a nuclear element of alcohol dependence but assessment instruments are usually based on psychopathological models. We have designed a questionnaire based on three factors: craving for the rewarding effect (Cr-R) of alcohol; withdrawal relief craving (Cr-W) and loss of control (LC).

**Methods:** Alcohol craving questionnaire (ACQ) was completed by 209 subjects with alcohol dependence and by 137 healthy controls. Also they completed the Severity of Alcohol Questionnaire (SADQ), the Barrat Impulsiveness Scale (BIS-11) and the Punishment and Reward sensitivity Questionnaire.

**Results:** ACQ correlated quite well ( $r = 0.59$ ) with SADQ. Three factors resulted from factorial analysis. Cr-R and Cr-W correlated with the Punishment-Reward sensitivity Questionnaire, and LC with BIS-11. High internal reliability was indicated with a Cronbach's Alpha of 0.94.

**Conclusions:** ACQ has appropriated psychometric properties for alcohol craving assessment. Reliability and concurrent validity of the ACQ makes it a suitable tool based on clinical characteristics of craving.

**P26**

Impact of age, education, medication and type of abused substance on cognition in dual diagnosis patients

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In recent years the number of patients with dual diagnosis is increasing, both in the system of psychiatric treatment and addiction therapy. A large number of them are persons suffering from schizophrenia and addiction to psychoactive substances. The results of the study done on this issue so far are inconsistent.

The objective of the study is to find if there are differences in cognitive functioning between this group of patients and schizophrenics not addicted to psychoactive substances. A group of 50 patients with a diagnose of schizophrenia were examined. Twenty-five of them never used illicit drugs, the other 25 also received a diagnose of addiction to psychoactive substances. The group of patients with a comorbid addiction was examined after 6 weeks of detoxification and treatment in a protective environment of a therapeutic community in order to avoid a direct influence of illicit drugs use on the result of the examination. Cognitive functions in both groups were assessed with trail making test A and B and Stroop Test, versions RCNb and NCWd. No statistically significant differences concerning examined cognitive functions between two groups of patients were found.

The above results are consistent with some of the data in the literature. The fact, that the group the schizophrenics with a comorbid addiction to did not differ in achieved results from the schizophrenics not addicted to drugs may have an importance to their social functioning after the treatment.

**P27**

Effects of multiple drug abuse on neuropsychological functioning: the impact of concomitant psychiatric disorders, substance abuse clustering and time of abstinence

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Effects of multiple drug abuse on specific neuropsychological functions have not yet been researched systematically. Only a few studies deal with the significance of substance-specific abuse clustering and concomitant psychiatric disorders, and the question of how reversible functional impairment is remains unanswered. This study seeks to clarify these issues.

A total of 347 multiple drug users (246 male, 101 female) were examined under controlled abstinence for 6 months at the Rehabilitation Center. Neuropsychological tests were done at the time of admission, after 4 weeks of withdrawal therapy (t1), as well as after 3 (t2) and 6 months (t3). In addition to intelligence, subjects were given attentiveness tests (i.e., alertness, divided attention, flexibility, intermodal comparison, incompatibility, working memory, Go/NoGo, visual scanning) using a computerised test battery and compared to normals, pure cannabis users and schizophrenics without drug abuse.

The substance abuse group showed significant decreases in all attentiveness functions ( $P < 0.0001$ ), with patients suffering from concomitant schizophrenic disorders showing greater decreases. These decreases were stable during follow-up. Depending on the specific substance abuse clustering, there were different restitution effects.

These results show the importance of different factors for long-term effects of multiple drug abuse.

**P28**

Interrelation of hepatic function, thyroid activity and mood status of alcohol-dependent individuals

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**Background:** Thyroid dysfunction is a prominent finding in alcoholism along with liver cirrhosis and chronic liver disease. Alcohol-induced changes in thyroid function may contribute to the development of mood disorders such as depression and anxiety that almost invariably coexists in alcohol-dependent patients.

**Objective:** The objective of the present study was to investigate the severity of liver dysfunction and thyroid activity in correlation to anxiety and depressive—like symptomatology before and after detoxification period.

**Material: Method:** The sample comprised of 100 subjects fulfilling the DSM-IV diagnostic criteria for alcohol abuse/dependence—“primary alcoholism”. Measurements of the serum levels of hepatic enzymes (ASAT, ALAT,  $\gamma$ -GT) and thyroid hormones (T3, T4, TSH) as well as measures of anxiety, depression and global functioning were obtained at baseline and at discharge over the period of 4–5 weeks.

**Results:** Mean age of subjects was  $46.29 \pm 11.51$  years and mean alcohol consumption was  $265.27 \pm 138.32$  gr/day. Increased levels of cholesterol ( $266.40 \pm 58.89$ ), triglycerides ( $208.12 \pm 90.86$ ), and hepatic enzymes (ASAT:  $53.89 \pm 45.22$ ; ALAT:  $48.67 \pm 48.45$ ;  $\gamma$ -GT:  $168.55 \pm 239.31$ ), as well as of the psychopathological scales (HDRS:  $39.45 \pm 6.86$ ; HARS:  $34.44 \pm 9.80$ ; GAS:  $46.30 \pm 5.06$ ) were observed upon admission. Both biochemical and psychopathological scores returned to physiological levels ( $P < 0.001$ ) after completion of the detoxification period.

Correlations were observed between the levels of hepatic enzymes and thyroid hormones as well as between the levels of thyroid hormones and the mood status scales.

**Conclusion:** Our results indicate a dysfunction of the hypothalamic—pituitary—thyroid axis in alcohol dependence with possible implications.

**P29**

Substance-related disorders dual diagnosis in a random nation-wide sample of 998 prisoners : prevalences and risk factors

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**Objective:** Most data concerning substance-related disorders in prison are limited to incoming prisoners. However, there is evidence that drug use in prison is frequent. For alcohol, data are scarce. Prison is also an ideal setting to study dual diagnosis as prevalence of both psychiatric and substance disorders are expected to be high. The aim of the study is to assess substance-related disorders and dual diagnoses

prevalences and risk factors in a nation-wide sample of french prisoners, convicted to short or long term sentences.

**Method:** A stratified random strategy was used to select 23 prisons among different types of prison then 998 prisoners. Diagnoses were collected by two clinicians according to a validated semi-structured procedure validated. One clinician used a structured interview (MINI plus v 5.0), the other, more experienced, continue with an open interview. The interview continue with socio-demographic, personality and childhood history questions. Then both clinician met and conclude with a consensual diagnosis.

**Results:** 35.17% of prisoners had either an alcohol or drug abuse/dependence in the last 12 months. 26.25% had a dual diagnosis. Current mood disorder was associated to alcohol. Low socio-demographic status and age were correlated to abuse/dependence. Crime against property was associated to drug while crime against person to alcohol. Being incarcerated in an overseas department was associated to drug. Novelty seeking, reward dependence, low self directedness and transcendence, trauma, separation and ill treatment in childhood were also significant. Suicidal risk was associated to dual diagnoses.

### P30

Memory impairment in alcoholic women

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**Background:** Feminine alcoholism gains in the last decades in importance: there are about four alcoholic men to each alcoholic woman. In spite the fact that the detection of female alcohol abusers is more difficult than in men due partly to the consuming patterns, the cognitive and somatic deterioration advance more pervasive and rapid than in men.

Aim of the study is to evaluate the short term memory impairment, recorded at alcoholic women.

**Methods:** Group 1 consisted of 30 female subjects, diagnosed with chronic alcohol dependence, admitted in the first 6 months 2003 at the second Psychiatric Clinic Cluj. Following tests have been performed: MAST, HRSD, Wechsler memory test, lion story for confabulations. Group 2 is composed by 23 female patients with depressive episode, examined by HRSD, Wechsler memory test.

**Results:** Comparing the memory results scored by Wechsler test, group 1 reveals significant ( $P < 0.001$ ) worse scores than group 2. Splitting by HRSD group 1, alcoholics with comorbid depression show significant ( $P < 0.001$ ) lower memory scores than nondepressed alcoholics. A slightly significant correlation ( $P = 0.023$ ) could be established between memory impairment and the presence of black-outs. Five patients from group 1 reported confabulations.

**Conclusions:** There is a global decrease of mnesic performances at the alcoholic group compared with the milder and transient memory problems of the depressed group. The comorbidity alcoholism-depression deepens the mnesic deficit. Confabulations are present especially at those alcoholic subjects with hard and long term drinking habits, with various “accidents” due to withdrawal syndrome.

### P31

Psychopathology in pathological gamblers in russia

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**Background:** Pathological gambling is an important medical and social problem. It is concerned with financial problems, interpersonal

conflicts with spouse, criminal acts, suicides. In Russia the increase of number of pathological gamblers is observed, but no researches are performed. The Aim of this study was to observe the psychopathological disorders in pathological gamblers in Russia.

**Methods:** The SCL-90-R questionnaire was used to evaluate the psychopathological disorders.

**Materials:** Seventy-three pathological gamblers were examined. The control group was formed by 77 people of the same age and sex not suffering pathological gambling. Statistical analysis was performed using *t*-test,  $\chi^2$ , criteria Mann–Whitney.

**Results:** Most of the patients were male (89%), middle age—26.8 ± 6.3 years; 27.4% of patients were divorced (compared with 6.5% in the control group,  $P < 0.001$ ), 71.2% had secondary educated (compared with 70.1% in the control group,  $P > 0.05$ ). 35.6% of patients had alcohol-related problems and 52.1% of them had alcohol-burdened familial history. In the control group these values were 27.3% ( $P > 0.27$ ) and 35.1% ( $P < 0.05$ ) respectively. The values of all psychopathological scales (somatic, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobia, paranoia, psychotic, GSI, PSDI) in gamblers were superior ( $P < 0.05$ ) to the control group.

### P032

Emotional-personality disturbances in patients with alcohol and drug dependence

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We have investigated peculiarities of the personality and affective reactions characterizing chemically dependent living on the territory of West Siberia, Russian-language, Europeoid race, male ones. We have examined 83 patients with alcohol (mean age 38.3 ± 8.9 years) and 77 patients with drug dependence (mean age 20.0 ± 2.6 years). We used tests 16 PF P.B. Kattell, MMPI, methods of pictograms.

It has been revealed that experience of feeling of guilt, anxiety, depressive trends, autopunitive type of reactivity are characteristic for alcoholic patients as compared with drug dependent patients. For the latter impulsiveness, amorality, affect rigidity, formal communicability and indifference in relation to surrounding ones not involved in to the sphere of “addictive” interests are typical. Emotional tension associated with intensity of syndrome of pathological bent for drug is realized in aggressive antisocial behavior. As a whole, drug addicts may be qualified as more “psychopathized” ones in clinical assessment as compared with alcoholic patients.

Results of conducted work prove that experimental-psychological investigation allows to differentiate peculiarities of emotional—personality disturbances in patients with alcohol and drug dependence conditioning variants of course of the disease and proposing various kinds of therapeutic impact.

### P33

Depression as a risk factor for relapse in heroin addicts

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**Objective:** There are a lot of factors contributing to opioid addiction treatment outcome. Very important factor for relapse is comorbidity with other psychiatric diseases. The aim of this study is to analyze relation between depressive symptomatology and number of relapses in outpatient treatment of heroine addicts.

**Method:** Fifty heroin addicts were observed for sign of depression 9 months after they have completed detoxication program. For depression rating we used Beck depression inventory (BDI) and Hamilton depression rating scale (HDRS), Subscale for depression on Minnesota multiphasic personality inventory (MMPI). Number of relapses during 9 months period was recorded.

**Results:** We found positive correlation between number of relapses and rating for depression.

**Conclusion:** Depression is important factor which contributes to opioid addiction treatment outcome and strong predictor for future relapses. So, identifying patient with depression immediately after detoxication program has been finished, provides opportunity for clinical intervention in order to reduce relapses.

### P34

Preliminary study on a sample of alcoholic outpatients treated in a Day Hospital setting based on the Minnesota Model

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The present study evaluates the outcome of a sample of alcoholic outpatients applying for treatment of the Alcohol Addiction Unit of a University General Hospital. Patients underwent rehabilitation according to the Minnesota Model in a Day Hospital setting.

Aim of this study was to record changes occurring between the onset and the end of treatment as to assess on which behavioural aspects of addiction the treatment may prove to be more effective.

The treatment consisted of 20 rehabilitation sessions divided into oriented group sessions led by an alcoholism counselor, and group psychotherapy sessions held by a psychotherapist.

The working hypothesis was that the patients who followed the 20 rehabilitation sessions should show significant improvements with respect to both symptoms and behavioural aspects of addiction.

A sample of 11 out patients was tested at the beginning and at the end of treatment with the SCL-90 R and with a self-evaluated profile of behaviours validated for addiction.

Scores showed significant reduction of the Global Severity Index of SCL-90 R and, in particular, of the scales for Somatisation, Obsessive behaviour, Compulsivity and Paranoid Ideation. Moreover, the self evaluated profile test showed significant improvement in the social aspects of addiction (social relations, work, etc.) and in hostility and responsibility.

The results emphasize symptomatological and behavioural changes particularly in the area of compulsive behaviour and interpersonal relationships. This is in line with specific targets of the Minnesota Model such as compliance and achievement of sobriety.

### P35

Aspect évolutif de la consommation des substances psychoactives en Tunisie

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**Objectifs:** Estimer la prévalence de la consommation des substances psychoactives (SPA) en milieu scolaire; et en suivre l'évolution sur une vingtaine d'années;

Déterminer quelques facteurs de risque/protection.

**Matériel et méthode:**

- Etude transversale et descriptive.

- 1073 jeunes étudiants scolarisés dans la ville de Sfax.
- Autoquestionnaire: Aspects biographiques, socio-familiaux, et addictifs.

#### Principaux résultats:

- Age moyen : 18.5 ans
- Sex-ratio (M/F)=0.6
- 80.4% des jeunes participants, ont décrit des difficultés relationnelles avec leurs pères versus 67.6% avec leurs mères.
- Tabac:
  - Prévalence: 25.4%
  - Motivations:
    - Se montrer devant les copains
    - Imiter les adultes
    - Défier les adultes
- Alcool:
  - Prévalence: 16.9%
  - Motivations:
    - Se montrer devant les copains
    - Imiter les adultes
    - S'évader des difficultés
- Autres drogues (cannabis et médicaments++):
  - Prévalence: 6.1%

**Discussion:** Sur 20 ans on a noté l'augmentation de la consommation tabagique, et à moindre degré celle alcoolique et des autres substances.

Les facteurs législatifs, religieux semblent être déterminants dans la limitation de cette extension au domaine du tabac.

La surconsommation masculine a été trouvée pour toutes les SPA, et quelque soit le moment des études. Des facteurs socioculturels sont imputés.

**Conclusion:** Axer la prévention de l'extension de la consommation des SPA parmi les jeunes, particulièrement celle du Tabac, est nécessaire et permettrait une limitation du risque toxicomaniaque. Un aménagement relationnel avec les parents semble être un élément principal dans cette action.

### P36

Comparative analysis of moral judgment of adolescents from alcoholic and healthy families

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**Background:** Considering that alcoholic family is a prototype of the dysfunctional family the presupposition our study based on defective and not stimulating for the psychological development of its members, and, consequently, for their moral development.

**Method:** The experimental group consisted of adolescents 15–18 years of age ( $n = 90$ ), from alcoholic families treated between 2003 and 2005, at the Institute of Mental Health in Belgrade. The control group consisted of their peers from healthy families ( $n = 90$ ). In our research we have used the following methodology: MMPI-201, cybernetic battery of intelligence tests COG-3, Moral Judgment Inventory, as well as adequate statistical methodology for processing the results.

**Results:** Initial hypotheses claimed that immature moral judgment is dominant in adolescents from alcoholic families, and there is a statistically significant difference in the levels of moral judgment between the adolescents from alcoholic and from healthy families. The obtained results show that mature forms of moral judgment are dominant in adolescents from alcoholic families, one of the explanations being the children's resilience. On the other hand, destructivity of alcoholic families is manifested by the highly significant difference in scores for mature forms of moral judgment

between the experimental and the control group ( $P < 0.001$ ), in favour of the healthy population adolescents.

**Conclusion:** Adolescents from alcoholic families manifest staganation in moral development as compared to their peers from healthy (functional) families.

**Keywords:** alcoholism; alcoholic family; moral judgment; adolescence.

### P37

Alcoholism in the Emergency psychiatric department (EPD)

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**Backgrounds/aims:** The purpose of this study is to describe the epidemiology of alcoholism in E.P.D. patients and the comorbidity of the sample.

**Method:** For a period of 2 months Cage Test enrolled all the adult psychiatric patients who admitted in E.P.D. Of a general hospital. Data collected, included demographics, triages complain—related diagnoses and history of alcohol abuse. Trained medical staff administered the Cage Tests. Thirty-five patients were unable or negative to complete the test.

**Results:** A total of 200 patients enrolled in the study. Twenty-seven percent of patients were defined as being alcoholics by positive response to at least two of the Cage Test questions. All four questions were positively answered by 13% of the sample. Alcoholic patients were more likely to be male (77.8%). Unemployed were a percentage of 47%. The more common diagnosis was dependence of alcohol and substances, psychotic and mood disorders.

**Conclusions:** The alcohol abuse must be investigating as several comorbidity factors in patients seeking medical support in the Emergency Psychiatric Department.

### P38

Neuropsychological prefrontal tests and depressive symptoms in patients with alcohol abuse

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**Background, aim:** Cognitive dysfunction plays significant role in pathophysiology and clinical picture of alcoholism. Depressive symptoms may increase cognitive deficits connected with prefrontal cortex. The aim of this study was to assess working memory and executive dysfunctions in relation to depressed symptoms in patients with alcoholism.

**Methods:** Sixty-three patients (47 male, 16 female) aged 21–58 (mean 41 + 9) years participated in this study. Neuropsychological assessment included Wisconsin Card Sorting Test and N-back (0-back and 1-back) test. for depressed symptoms assessment Beck Depression Inventory were used.

**Results:** Investigated patients show significant impairment on performance on all parameters of WCST. Greater impairment of WCST – nonperseverative and perseverative errors in male compared to female patients were observed. The results of N-back test show severe impairment on visuospatial functions and attention on 0-back and severe disturbances on visuospatial working memory on 1-back task. No significant difference on the performance on neuropsychological test were observed between patients with short-term and long-term abstinence, except WCST N-P mostly connected

with attention. No correlation between intensity of depression and performance on WCST and N-back test, except 1-back test—reaction time in patients with long-term abstinence ( $r = 0.49$ ,  $P < 0.05$ ).

**Conclusions:** The results show significant disturbances on frontal functions in patients with alcohol abuse. Cognitive frontal lobe impairment are present in patient with short- and long-term abstinence. Depressed symptoms and frontal cognitive impairment are separate disorders connected with different pathophysiology.

### P39

Motivation development in female alcoholic patients—experience from the department of alcoholism, institute of mental health, Belgrade

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**Background and aims:** Motivation plays an important role in alcoholism treatment by influencing patients to seek, complete, and comply with treatment as well as make successful long-term changes in their life-style. The development of fundamental motivation was evaluated in female alcoholic patients during the intensive (inpatient) and rehabilitation (outpatient) treatment.

**Methods:** Sixteen female alcohol-dependent patients (aged 46.4 years in average; eight divorced, one widow, seven married, the average period of alcohol dependency—12 years) filled in the Questionnaire about motivation. All have finished inpatient intensive treatment and have been in the rehabilitation group for at least 12 months.

**Results:** During the intensive phase of treatment none of the patients acquired fundamental motivation. As additional motivation, fear of recidives has been underlined. During the rehabilitation period, facing the drinking-related family problems has been recognized as fundamental motivation for acceptance of healthy life-style.

**Conclusions:** Rehabilitation had a key role in the development of fundamental motivation which, along with abstinence as a prerequisite, leads to the acceptance of a new, healthy life-style.

### P40

Relation of social environment to females treated for alcohol and other psychoactive substances dependence

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**Background and aims:** Evaluation of social environment relation to females treated for alcohol and other psychoactive substances addiction and social environment knowledge about the disease and its treatment.

**Methods:** Data were collected from medical history, psychiatric sheet and clinical records. Patients filled in the Questionnaire about social environment knowledge and its relation to addictive disorders as well as the adaptation problems after intensive treatment. Thirty-four female patients were evaluated: 23 alcohol dependent, (16 in rehabilitation group—average age 47, duration of alcohol dependence—12 years and 7 in stabilization group—average age 52, duration of alcohol dependence—8 years) and 11 multidrug female addicts (28 years in average, duration of dependence—7 years).

**Results:** Only 9% of patients consider that social environment has adequate knowledge, 9% responded that social environment has no knowledge, while 82% of patients consider that social environment

has only partial knowledge about addictive disorders. Asked how many times they felt unpleasant due to being treated for alcohol or drug dependence, 9% responded "often" (mostly females from stabilization group), 29% "occasionally" and 62% "never" (mostly from young female rehabilitation group).

**Conclusions:** Although social environment knowledge about addictive disorders is increasing it is still not adequate. Young people have greater interest for this problem and among them stigmatization of patients treated is less expressed.

## P41

Dopamine d2 and serotonin 5-HT1A receptors polymorphisms: towards a dual genetic modulation of alcohol craving

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**Introduction:** Significant association has been reported between DRD2, substance misuse and craving. Serotonin is also thought to play a predominant role in alcoholism. We studied the links between alcohol craving and both the A1 allele of the DRD2 and the C-1019 allele of the 5-HT1A receptor.

**Methods:** Sixty male alcohol dependent patients were hospitalized for withdrawal. Craving was monitored weekly throughout their 4-week stay and twice in 2 months after discharge, using the OCDS. Genomic DNA was extracted and PCR amplifying Taq1a polymorphisms of the DRD2 and C-1019G polymorphisms of the 5-HT1A were performed. The impact of DRD2 (A1 or A2 alleles) and 5-HT1A (C or G alleles) on craving was assessed by ANOVAs.

**Results:** Craving was significantly higher during acute withdrawal in homozygous patients for the C1019 allele of the 5-HT1A receptor ( $P = 0.002$ ). The A1 allele of the DRD2 did not influence craving during hospitalization but 2 months after discharge, abstinent patients carrying the A1 allele exhibited higher craving scores than homozygous patients for the A2 allele ( $P = 0.004$ ).

**Conclusions:** Alcohol craving may be influenced by genetic differences in alcohol dependent patients. There seems to be a dual serotonergic and dopaminergic modulation of craving. During acute withdrawal, desire to drink is predominantly influenced by the C1019 allele of the 5-HT1A receptor. Conversely, carrying the A1 allele of the DRD2 increases craving only when patients are no longer hospitalized and protected from drinking cues.

## P42

Differences between male and female alcoholics

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Special psychiatric hospital is one of the largest psychiatric hospital in Balkan. There are 15 wards in our hospital. One of them is Alcoholic ward (Ward for treatment of alcoholics). There are 50 beds, 42 of them are for men, and eight are for women. In our study we analysed 5 years period (2000–2004), and we analysed some social-demographic and psychiatric characteristics of admitted alcoholics. There are about 300 admitted alcoholics per year. In 5 years period there were 1024 alcoholics in 1455 hospitalisations. We compared characteristics of male and female alcoholics. The same characteristics were: education

(men = 48% with secondary education, women = 52%), age (men = 34% between 41 and 50 years, women = 33%), admissions at night hours (men = 31%, women = 36%), agreement of hospitalisation (men = 46%, women = 40%) and number of hospitalisations (men = 23% with rehospitalisations, women = 24%). Different characteristics were: number of admitted alcoholics (men = 96%, women = 4%), marital state (men = 60% were married, women = 43%), living location (men = 46% from village, only 24% women) and lethal complications of alcohol dependence (2% men, and no women).

## P43

Cerebrolysin in heroin addiction treatment

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**Aim of study:** To research the patients with opiate drug addiction receiving Cerebrolysin.

**Methods:** Fortynine heroin addicts were studied, patients age was from 19 to 49 years old, duration addiction from 1 to 9 years. Clinical-psychopathological, statistical methods were used.

**Results:** As a result of duration drug abuse at a part of the patients is formed a psychoorganic syndrome with decrease of capacity for work, social disadaptation and intellectual-mnemonic decline. Besides at different stages of disease, at the patients different affected disorders are observed, including apathico-abulic and original asthenic statuses. In this connection, we included in therapeutical program Cerebrolysin, peptidergic nootropic drug, which raises efficiency of the energy metabolism of brain, reduces injuring neurotoxic action from addictive drugs and prevents destruction of neurons. It was applied intramuscularly on 5 ml twice a day. Duration of a rate—4 weeks (10 injections per 1 week).

The most effective application of Cerebrolysin was in the stage of the beginning of remission, i.e. in 2 weeks from the moment of a beginning of treatment of the abstinence syndrome. It promoted improvement of concentration of attention, at the patients the processes of intellectual activity were made active, the stable positive emotions were formed. On a background of treatment of Cerebrolysin at the patients practically it was not marked aggravation of a craving for the addictive drugs.

**Conclusions:** By the patient with opiate drug addiction, at which psychoorganic syndrome was formed, it is expedient to include Cerebrolysin in therapeutical program.

## P44

Psychotic symptoms in cocaine dependent patients

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**Background and aims:** Cocaine consumption has been associated with the presence of psychotic symptoms (Roncero et al. 2001). At present, the prevalence and clinical characteristics of symptoms related to cocaine consumption are not well known. 65–70% of compulsive cocaine users present paranoid symptomatology when they are intoxicated, and between 53% (Brady et al. 1991) and 68% (Satel et al. 1991) of the cases present paranoia induced by cocaine.

Despite the high prevalence of cocaine use in Spain, little research on this topic has been carried out among Spanish cocaine users.

The aim of this preliminary investigation is to evaluate the prevalence of psychotic symptomatology in Spanish cocaine dependent patients.

**Methods:** We describe the presence of psychotic symptoms after cocaine consumption, in 35 patients with DSM-IV-RT diagnostic criteria for cocaine dependence, that attended the outpatient unit of our hospital.

**Results:** The mean age of initiation of regular cocaine use was 19.35 years (S.D. = 5.6). The primary route of administration was intranasal (91.4%) and in 82.8% of cases, cocaine was used on a daily basis, with a regular mean consumption of 1 g/day and a maximum of 2.7 g/day.

In the sample studied ( $N = 35$ ), 11 patients (31.4%) reported experiencing sensory-perceptive disturbances during cocaine consumption, and 21 of them (60%) reported psychotic symptoms.

**Conclusions:** The prevalence of psychotic symptoms is high in the sample studied and similar to the findings of other studies reviewed. The psychotic symptoms detected indicate the severity of the cocaine dependence disorder among the patients studied.

## P45

Past suicidal attempts in treatment-seeking gamblers

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**Background and aim:** Studies of treatment-seeking gamblers establish a relationship between gambling and suicide. Pathological gambling is characterized by loss of control, debt, family and social problems as well as psychological distress. We investigated clinical characteristics in pathological gamblers of a Swiss specialized outpatient clinic affiliated with the regional university hospital.

**Method:** Data are based on medical files of our treatment center. Among 134 patients admitted between September 02 and May 05, we identified 13 pathological gamblers who attempted suicide (12 directly linked with gambling).

**Results and discussion:** Compared with pathological gamblers without a history of suicidal behaviour, pathological gamblers with suicide attempts were more likely to be women (46% vs. 25%), separated or divorced (39% vs. 28%), referred by the forensic network (69% vs. 30%,  $P < 0.01$ ), disabled (31% vs. 12%), and showed no difference with respect to age at intake (mean 37 vs. 39) or employment status (62% vs. 63%).

The evocated reason to gamble for the suicidal pathological gamblers was “escaping from problems” 63% as compared to only 32% for the non-suicidal gamblers. There was no difference with respect to “monetary gain/financial problems” (78% vs. 87%). Co-addiction however showed a significant relationship with respect to alcohol abuse (62% suicidal gamblers versus 24%, for non-suicidal gamblers  $P < 0.01$ ).

These data suggest that treatment-seeking gamblers with a history of alcohol abuse and with referral from forensic services tend to be at higher risk for lifetime suicide attempts.

## P46

Substance abuse in mood disorder: temporal trends in prevalence from 1980 to 2004

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**Background:** High prevalence of Substance, either alcohol or illicit drug abuse (SA) among in-patients with mood disorder (IMD) is a well-known fact. Surprisingly, few studies examined the changing feature of this comorbidity. The aim of this study was to evaluate temporal trends in the point prevalence of SA in this population at the time of first admission.

**Method:** Trends of SA (1980–2004) were analyzed using a representative sample of all admissions to a regional psychiatric hospital in Canada. Data (ICD-9 codes: 296.x, 298.0, 298.1, 300.4, and 311.9) were taken from separation sheets of 2059 first admitted subjects (14+ years). Correlation analysis included two linear regression models, with specific examination of the year of admission, age at the first admission, gender and the comorbid personality disorder.

**Results:** Over 24 years period, the average prevalence rates of SA was 23.3% (19.1% for alcohol and 10.1% for illicit drug). There was an annual increase in the prevalence of SA of 0.5%, from 7.6% in 1980–81 to 18.9% in 2003–04 ( $P < 0.0001$ ). An association of SA and younger age was found ( $P < 0.0001$ ). Although, the increase in SA was more important among the men, it was not significantly associated with gender and comorbid personality disorder.

**Conclusions:** This study highlights an increasing prevalence of SA at onset of diseases among IMD overtime. This might be an artifact of growing substance use rate and its acceptability in society. Nevertheless, our findings underscore the need to address regularly SA problems in this population.

## P47

The startle reflex and the Alcohol craving questionnaire based on three factors (ACQ-3F): two complementary instruments for craving assessing

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**Background:** Craving for alcohol is a nuclear element of alcohol dependence. We have designed a questionnaire based on three factors (Alcohol craving questionnaire-ACQ-3F): craving for the rewarding effect (Cr-R) of alcohol; withdrawal relief craving (Cr-W) and loss of control (LC). The eyeblink response to startling noise has been used as an indicator of the emotional response to alcohol-related cues. We tested the hypothesis that affective responses to alcohol-associated visual stimuli were correlated with craving for the rewarding-effect-Factor (Cr-R).

**Methods:** ACQ-3F was completed by 44 detoxified alcoholics. Affective responses to alcohol-associated visual stimuli were measured with the affect-modulated eyeblink startle reflex.

**Results:** Craving for rewarding-effect-Factor (Cr-F) and loss of control (LC) correlated with affective responses to alcohol-related stimuli. These findings indicate that alcohol-related stimuli may have appetitive incentive salience for alcoholics.

**Conclusions:** ACQ-3F is a craving instrument with psychophysiological support. Characteristics of ACQ-3F make it a suitable tool for assessing craving.

**P48**

Comorbide diagnoses in alcoholism in-patient and after-care treatment: implications of follow-up research for clinical work

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**Background and aims:** Post-treatment outcome evaluation has been the traditional method of assessing the effectiveness of addiction treatment. Relevant domains of treatment success are supposed to be reduction in alcohol and other drugs use, increases in personal health and improvements in social function. In the present study we were especially interested in recovery process in the context of comorbide disorders (diagnosed after at least 1 month of sobriety).

**Methods:** We have been following basic parameters of treatment of patients ( $n = 347$ ) of Alcohol Addiction Treatment Unit of University Psychiatric Hospital at the beginning and at the end of in-patient treatment and then after 3, 6, 12 and 24 months after completion of care.

**Results:** The most frequent comorbide diagnose on axis I were Depression disorders, followed by Personal disorders. Their impact on psychosocial status differs in evaluated punctuations of time and in the context of gender (the greatest vulneralibility of patients with comorbide depression at 6 and 24 months after treatment; female patients with depression and other comorbidity show higher vulnerability of psychosomatic and social status over each punctuation of time; patients with dual diagnoses were not found more vulnerable in relapse of alcohol use if included in intense after-care treatment).

**Conclusion:** The follow-up is based on new paradigm of evaluation of alcohol addiction treatment named »concurrent recovery monitoring« (McLellan et al.): the evaluation is not considered simply as measurement of treatment success but is conceptualised as identification of patient's staus over time with possibility to intervene if necessary.

**P49**

Alcohol induce expression of peripheral benzodiazepine receptors and mediate alteration of steroid and tyreoid hormones in patients

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**Introduction:** High densities of peripheral benzodiazepine binding sites (PBR) were evident in the brain, platelets and in endocrine tissues also. Localization of the PBR on the mitochondrial membrane suggests that PBR may represent importante control sites for the modulation of intermediary metabolism.

**Objective:** To investigate the properties of the PBR in human brain (post-mortem) and in blood platelets and plazma levels of steroid and tyroid hormones in alcoholic (A) and non-alcoholic (NA) were examined mitochondrial fractions of brain samples accordingly and blood platelets and blood plazma samples from pations and healthy donors (mans only).

**Methods:** For the investigation we well be study binding of 3H-PK11195 with mitochondrial membranes prepared from different brain regions of alcoholics (A) and non-alcoholics (NA) post-mortem (not more 6 h after death) and the binding of 3H-PK 11195 with peripheral blood platelets.

**Plazma levels of some steroids:** ACTH, cortisole, progesterone, testosterone and TSH, tyroxine were measured in A and NA.

**Results:** A comparative studies of the properties of central and peripheral BDR in different brain structures from NA and A showed the reduction of the affinity and increasing of binding sites both types in A. We observed more changes of properties of PBR. We found similar alterations of PBR in pheripheral blood platelets that suggests close connection between central and pheripheral benzodiazepine receptor systems Plazma levels ACTH, testosterone and tyroid hormones were decreased and cortisole, progesteron levels were increased in A Alcohol modulate the properties of benzodiazepine receptors and levels of steroids and tyroid hormones.

**P50**

Maternal alcoholism reduce development of human brain cortex capillars

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**Introduction:** Function of hematoencephalic barrier (HEB) of the embryonic brain is provided by cellular elements—developing glial cells, endothelial vessels cells, pericytes and non-cellular structures—basal membranous capillaries. HEB components are in a in immediate contact with alcohol penetrating through it during alcoholization in the period of a pregnancy.

**Method:** Totally 43 human's embryos 7–12 of gestation (abortion material) have been obtained: 23 – from alcoholic female patients (26–39 age) and 20 – from healthy women (control group). Electronically microscopic investigations examined intermediate layer that what distinguished with orientation at ventricular layer. At this stage of development intermediate layer represent by itself a cluster of neuroblasts, glioblasts (including microglial cells), dendrites of these cells, between them blood vessels begin to grow out. for computer morphometry there have been used sections at the level of the intermediate layer of 1–1.5 mcm, coloured with methylene blue.

**Results:** On the grounds of conducted computer-morphometric analysis of development of capillaries of an embryonic brain under conditions of prenatal alcoholization it has been established a reliable decrease of such indices of capillary network as total square, mean and relative ones. Also, in this group perimeter of the capillaries is less too. Alcoholization of the maternal organism leads to reliable decrease of the total square of capillaries of an embryonic brain at weeks 11 and 12 of the development, their mean square in the same period as well as their relative square in the tissue of the brain.

**P51**

Sometimes computer technology can create new problems

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Technology, and most especially, computers and the Internet, seem to be at best easily overused and at worst, addictive. This study examined computer behavior of 283 teenagers, aged between 15 and 18 years old, who answered to a questionnaire. All the students come from 5 high schools of Iasi, Romania. The parents of children's answered too another questionnaire with same subject in order to assure a certain degree of validity. These were aimed at highlighting: 1. Frequency of computer use by the teenagers; 2. Interference of excessive use with school grades and social life; 3. Identification of a possible computer addiction. We present a descriptive analysis of the aspects of computer use by teenagers and the attitude of their

parents in these matters. Data have been processed statistical with the program SPSS statistics software, 11.0 version. The results show that they spent usually much time on computer (more than 3 hours/day), while is some evidence of pathological use.

## P52

Changes of the blood count at alcoholics

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Long-term misuse of alcohol brings to physical, psychological and social damage. Very frequent somatic complications are haemathologic changes. Etanol causes multiple, reversible, acute and chronic effects on all blood cells, particularly erythrocytes. Influence on red blood cells is manifested in increase of their size (mean corpuscular volume-MCV), usually without anemia.

In our work, a group of 132 patients was treated from alcohol-related disorders in Special Psychiatric Hospital in Gornja Toponica during the first half of year 2005.

Most significant changes in complete blood count were found at Mean corpuscular volume, which was increased at 72.24% of patients. Also at 55.3% of patients, we found reduced concentration of red blood cells, reduced haematocrit (at 40.91% of patients) and haemoglobin concentration (40.15% of patients). All other parameters were not significantly changed.

## P53

Alcohol abuse, timing of homicide, and choice of weapon: war—peace comparison

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There is a small number of studies comparing the criminal homicide during the wartime and peacetime. After the war in Bosnia and Herzegovina we observed many war-peace differences regarding the most features of homicide.

Two group were formed, each including 50 homicides. The wartime and the peacetime group were compared in relation to the alcohol abuse, seasonal, monthly, week and day timing of commitment. We compared the choice of weapon committed homicide with.

During the wartime, 46% of homicide were under the influence of alcohol, comparing with 76% of cases during the peacetime ( $P < 0.005$ ). A seasonal difference: during the peacetime in the winter months there were 38% of homicides committed; during the wartime in the summer were committed 32% of homicides ( $P < 0.005$ ). The homicides were committed almost equally during the weekdays in the war period; the most homicides were noticed during the weekends in the peace period ( $P = 0.0056$ ). The homicides were mostly committed between 11 and 17 h in the war period, while in the peace period this timing was between 17 and 23 hours ( $P < 0.05$ ). During the war, the criminal homicide was committed in the most cases by an fire weapon; during the peacetime murderers used mainly “cold weapons” ( $P < 0.005$ ).

Comparing the criminal homicides during the wartime and peacetime in Bosnia and Herzegovina, we found a significant difference between two groups regarding of criminology and forensic-psychiatric characteristics of homicide.

## P54

Using of multiparametric EEG analysis in alcoholism and narcomania

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For creating of automatic control of alcohol and narcotic addict for professional selection in the extreme situations the properties of brain biopotential organization was investigated. Multiparametric comparative analysis (840 parameters) of spatial organization of EEG was carried out in 156 alcoholics and 140 heroin addicts. Common and different deviations from normal EEG (115 control subjects) were found. Global alterations of EEG spatial organization were observed in heroin addict (as compared to alcoholism). Such changes characterized by increasing of synchronization effects of mesolimbic and brainstem structures on the brain cortex. The ethanol effects were more specific and asymmetric. Changes in EEG spectral-coherent characteristics were revealed in all frequency bands. However, maximal changes took place in the high-frequency theta in drug addicts and in narrow-frequency alpha subranges in alcoholics. Different effects on the high-frequency EEG component (19.00–21.25 Hz) and information-energy index (coherence-to-spectral power ratio) suggest the difference influence of ethanol and heroin on emotional-motivational and cognitive processes as well as the level of consciousness. The obtained data on EEG discrimination of alcoholism and drug addict (the inverse problem solution) on the basis of “specific” EEG patterns appear to have considerable promise in development of systems of occupational selection.

## P55

Descriptive study of facial emotional recognition from alcohol-dependent patients and their biological parents

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**Introduction:** Many studies suggest that some difficulties in interpersonal social interactions might play an important role in alcohol dependence. Aim of this study is to compare the ability of emotional faces discrimination in a population of alcoholic subjects and their biological parents.

**Method:** Alcohol dependant subjects according to DSM IV criteria and their healthy biological parents were recruited. A control group will be borrow to the literature. A visual test (“Superlab”) was presented to all subjects. Seventy-two photos of faces representative of six emotions (sadness, anger, fear, disgust, happiness, and a emotion called “neutral”) were shown to the subjects for recognition (12 faces for each emotion).

**Results:** Both group, alcohol dependent subjects ( $n = 13$ ) and their parents ( $n = 16$ ) encountered difficulties to recognize each emotion (respectively, 66.4% and 68.1% of correct responses) compared to a control population who executed to the same test (81.7% of correct responses) for each emotion (except for fear) the distribution of mistakes on the five other emotions are the same for both group for “fear” emotion, parents who do not recognize this emotion classified it preferentially as anger.

**Discussion:** Results for alcoholic subjects and parents tend to highlighted a familial similitude in emotion discrimination compared to the control group. This disability in discrimination might be dependant of behavioral and/or genetic factors. Considering our results we ask if emotional discrimination could be considered as an endophenotype?

**P56**

Pre- and post-detoxification incidence of social anxiety symptoms and other phobic symptoms in a sample of alcohol dependent individuals

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**Objective:** Social anxiety symptoms (SAS) and other phobic symptoms are reportedly often present in alcohol abusing/dependent individuals. We investigated the type and severity of these symptoms and the impact of detoxification on such symptoms.

**Methods:** The sample of the study comprised 120 alcohol dependent individuals who were treated on an inpatient basis. Liebowitz Social Anxiety Scale (LSAS), and the Marks & Mathews' short Fear Questionnaire for generalized phobias were administered at the beginning of the detoxification period and at discharge. Descriptive statistics are used for the results.

**Results:** Mean age was  $46.3 \pm 11.5$  years and mean alcohol consumption was  $316.3 \pm 137.5$  gr/day. Upon admission, mean scores on the LSAS-fear and the LSAS-avoidance scales were  $49.5 \pm 11.1$  and  $52.9 \pm 12.4$ , respectively. The respective scores on the social fear/avoidance and performance fear/avoidance subscales were  $22.8 \pm 5.4/24.5 \pm 5.9$  and  $26.7 \pm 6.6/28.3 \pm 7.5$ . More specifically, 42.2% of the total sample had a mean LSAS-fear score less than 51 (mild SAS), and 57.8% a score ranging between 51 and 81 (moderate SAS). The respective rates for LSAS-avoidance scores were 34.9% and 65.1%. Score on the Marks & Mathews was  $48.5 \pm 11.2$ , which represents a considerable severity of symptoms. Following completion of detoxification, scores on both scales exhibited a most significant decline ( $P < 0.001$ ). Thus, LSAS-fear and LSAS-avoidance scores on discharge were  $31.2 \pm 7.0$  and  $32.5 \pm 8.0$ , respectively and the score on the Marks & Mathews' short Fear Questionnaire was  $20.1 \pm 6.9$ .

**Conclusions:** A high incidence of SAS and other phobias is recorded in inpatient alcohol dependent individuals, which significantly subside following detoxification. This may have implications for the long-term abstinence from alcohol.

**P57**

The impact of detoxification on the coping strategies of inpatient alcoholics

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**Objective:** To investigate some aspects of the coping strategies of the personality and the probable impact of detoxification on these characteristics of inpatient alcohol dependent individuals.

**Material and method:** The sample of the study comprised 120 patients who fulfilled the DSM-IV diagnostic criteria for alcohol abuse/dependence, treated on an inpatient basis at the specialized drug and alcohol addiction service of the Athens University Psychiatric Clinic at the Eginition Hospital. The subjects were assessed with the Pilowski scale for hypochondria, the Leyton scale for obsessive compulsive symptoms and the Sifneos' scale for alexithymia. The questionnaires were administered at the beginning of the detoxification period and at discharge.

Descriptive statistics are used for the presentation of the results.

**Results:** Mean age  $\pm$  S.D. of the sample was  $45.8 \pm 12.3$  years and mean daily alcohol consumption was  $288.5 \pm 55.6$  gr/day. Upon admission the mean scores on the different scales were as follows: Leyton:  $14.2 \pm 3.1$ , Pilowski:  $9.1 \pm 2.7$ , Sifneos:  $11.5 \pm 2.5$ . After completion of detoxification the scores were: Leyton – Trait:  $9.8 \pm$

$3.2$  ( $P < 0.000$ ), Pilowski:  $4.9 \pm 2.4$  ( $P < 0.000$ ), and Sifneos:  $10.4 \pm 2.3$  (NS).

**Conclusions:** Detoxification from alcohol appears to change significantly some aspects of the coping strategies of the individuals. Further investigation of this issue should be undertaken.

**P58**

Comorbidity association study in heroin dependent patients

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**Background:** Heroin dependence is comorbid with personality disorders, unipolar depression, bipolar or anxiety disorders, schizophrenia, C and B hepatitis and HIV infections.

**Objective:** To establish the most frequent psychiatric and somatic disorders in a group of patients diagnosed with heroin dependence.

**Methods:** We selected records of 118 patients, 98 male and 20 female, aged between 18 and 32, admitted in our clinic during a 5 years period (2000–2005), diagnosed with heroin dependence according to DSM IV TR criteria. All these patients were examined by a multidisciplinary team, including a psychiatrist, a psychologist, an internist and a cardiologist. Blood sugar level, hepatic transaminases, HIV tests, C, B and D hepatitis specific tests, blood pressure, electrocardiogram and ecographic investigations were conducted during the hospitalisation. Psychologic assessment included Hamilton Scale for Anxiety and Depression (HAMA and HAMD), Positive and Negative Symptoms for Schizophrenia (PANSS), Structured Clinical interview for Axis II DSM IV Disorders (SCID-II).

**Results:** Patients included in this study presented a high percentage of personality disorders (74.5%), mainly borderline (34%) and antisocial (21%), depressive disorder (28%), anxiety disorders (17.7%), bipolar disorder (6%), schizophrenia (2.3%) and other substance dependence (47.2%). Somatic diseases included mainly C (25.4%) and B (17%) hepatitis, HIV infection (25%) and endocarditis (8.4%).

**Conclusion:** Heroin dependence associates frequently psychiatric and somatic disorders, increasing the cost of treatment, lowering the chances for a good prognosis and decreasing compliance to treatment. A thoroughly examination must be realised by a multidisciplinary team whenever heroin dependence is suspected.

**P59**

Immune reactivity in alcoholism

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Disturbed function of the immunity under influence of alcohol results in formation of secondary immune failure, decrease of defensive immune mechanisms. Our investigations have shown that immune disturbances in alcoholism are an important pathogenetic link of pathological bent for alcohol formation and disruption of remissions.

**Objective:** To study immune response to alcohol withdrawal in patients with non-psychotic and psychotic forms of alcoholism. 95 alcoholics were examined at hospital admission with withdrawal syndrome exacerbation, control – 106 healthy people. We have studied number of CD2+, CD3+, CD4+, CD8+, CD16+, CD72+, HLA-DR+-lymphocytes, IgM, IgG, IgA, concentration, level of circulating immunocomplexes (CIC). The investigations have shown that in patients with non-psychotic form of alcoholism alcohol

withdrawal syndrome was accompanied by a substantial T-cellular immunodeficit with reliable decrease as compared with control of number of T-lymphocytes CD2+, CD3+ - phenotypes, helpers/inducers (CD4+), natural killers (CD16+) with high IgA concentration in blood serum. In the second case withdrawal syndrome state in patients with delirium was accompanied by leukocytosis, lymphocytosis reliable as compared with control increase in peripheral blood of number of T-lymphocytes (CD3+), B-lymphocytes (CD72+) and activated T-lymphocytes (HLA-DR+), IgM, IgA concentration, level of CIC. State of the immunity system in withdrawal syndrome period in patients with non-psychotic forms of alcoholism was characterized by us as a hyporeactive type of the immune response, in psychotic forms—as a hyperreactive type of the immune response to ethanol withdrawal.

## P60

Alcoholism and psychiatric comorbidity: a complex charging

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According to National Comorbidity Survey studies, about 42% of the patients affected by alcohol dependence shows a mental disorder (Kessler, 2004). Patients with co-existent mental illness and alcohol abuse are commonly defined dual-diagnosis or comorbid patients. This patients are more difficult to take in charge.

Since 1994 the Outpatient Unit for treatment of alcoholism of the Psychiatric Department of the Ospedale Maggiore in Milan offers individual therapeutic-rehabilitative programmes directed to alcohol-abuser and dependent patients.

Treatments follow an integrated approach and aim at the recovery and improving of patients' global functioning.

**Objectives:** The evaluation of the prevalence of comorbidity in the examined sample and its influence on charge and adhesion to treatment.

**Methods and materials:** The examined sample is composed by 164 patients accessed to the Outpatient Unit for treatment of alcoholism from 1994 to 2003.

We considered only the patients of which we have complete clinical and socio-demographic data.

1. First we examined prevalence of comorbidity in the whole sample and considered the correlations between comorbidity and the other investigated variables: social, demographic, clinical features.

2. Then we analyzed influence of comorbidity on adhesion to treatment.

**Conclusions:** 1. Psychiatric comorbidity concerns 70% of the general sample (55% received a DSM-IV axis I diagnosis, with a predominance of mood disorders; 33% an axis II diagnosis, with a predominance of dependent/avoiding or borderline personality disorders);

2. Adhesion to treatment has been gained for 65% of the patients and it seems to be influenced by gender and by participation to self-help groups.

## P61

Heroin over dose and co-intoxication

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**Background and objective:** The present study was designed to evaluate acute opioid and multidrug intoxication of all patients treated on the medical emergency department (EDs) in Institute of addictions,

Belgrade, between march 2003–2005. Because of paucity of information on the epidemiology of acute opioid and polytoxicomany poisoning requiring intensive medical care, it was reasonable to presume different treatment and monitoring adverse outcomes between group of patients. The aim of study was to show does co-intoxication increase risk of death or adverse events during monitoring in ED.

**Methodes:** Data were extracted from database protocol of a prospective psychoactive substantives (PAS) study conducted between march 2003–2005. Of the total of 1856 patients 296 patients were treated for acute intoxication in the ED.

**Results:** Of 296 patients studied, 140 (49.3%) had pure opioid intoxication, 54 (20.4%) had opioid over dose and 86 (30.3%) reported co-intoxication including more then two PAS—alcohol, CSN depressant drug and cocaine. Considering known outcome status and variety of treatments there ware 20 major adverse events (7%) and 26 minor adverse events(9.2%). After adjustment for age,gender, history of addiction,cardiovascular disease, there is no evidence that co-administration of alcohol, CNS depressants or cocaine, in combination increase risk of death or adverse events during follow up period.

**Conclusion:** Due to excellent care in EDs the number of patients requiring treatment was rather low and history of cointoxicifation can not be predictable for more intensive monitoring or prolonged observation. The patients provided for opioid intoxication or over dose, short-term outcomes are similar for patients with multidrug intoxication.

## P62

Use of the natrium valproate in heroine withdrawal syndrome

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**Objective:** Opiate withdrawal syndrome can be very disagreeably. This is frequently cause for disconnect treatment. Because, we try to decreased symptoms of withdrawal syndrome with combination differently medicaments. Opiate withdrawal syndrome requires the administration of the combination of analgesics, anxiolitics, hypnotics, antiemetics, antidiarhoics nad parenteral fluids, sometimes neuroleptics and psychostabilisers. The efficiency of natrium valproate, as psychostabilisers, has been observed among heroin addicts in single blind controlled study.

**Method:** Patients, who are measuring in this study, were hospitalized in Institute of psychiatry, Clinical for drug dependent in Novi Sad. In this research we observed 30 drug addicts who given symptomatic therapy with natrium valproate and 30 drugs addict without natrium valptoate in therapy. All the patients were interviewed every morning in order to see if there were any withdrawal symptoms and with regard to results therapy was modified.

**Results:** The symptoms of opiate withdrawal syndrome were significantly les in patients receiving natrium valproate. Moreover, the quantity of additional drugs, like anxiolitics and hypnotics has been reduced.

**Conclusion:** Natrium valproate was observed as relatively safe and effective in therapy withdrawal syndrome for inpatients in the detoxifications program.

## P63

Treatment for pathological gambling: influence of co-morbid substance abuse

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**Background and aims:** It is still unclear how additional substance abuse, which is often associated with pathological gambling, influences the treatment of pathological gamblers. In this study, we investigated the role of co-morbid substance dependence on the treatment and the drop out rate of patients recruited in a Swiss outpatient clinic for pathological gambling.

**Sample and methods:** One hundred and twenty-eight patients were included, who all presented a primary diagnosis of pathological gambling (based on DSM IV, SOGGS and standardized clinical interview). We assessed tobacco, alcohol, heroin, cocaine, cannabis and medication abuse or dependence and compared their influence on the drop out rate and type of treatment (brief counseling, motivational interviewing or cognitive-behavioral therapies).

**Preliminary findings:** Fifty-one percent of our patients are smokers, 19% showed symptoms of alcohol abuse, 4% used cannabis, 1.6% were cocaine dependent, 1.6% were medication dependent and 0.8% were heroin dependent. The drop out rate seemed to be higher in patients smoking ( $P < 0.05$ ), abusing or being dependent on illicit or prescription drugs (cannabis ( $P < 0.005$ ), heroin ( $P < 0.05$ ), cocaine ( $P < 0.05$ ), prescription drugs ( $P < 0.01$ )). Most of the patients seeking only brief counseling had co-morbid substance dependence.

**Implication for the field:** Patients with symptoms of substance dependence are more likely to drop out or to attend a brief counseling instead of engaging in a therapy. Therefore, co-morbid substance dependence (although it appears to be a poor treatment predictor) should be considered at onset of treatment for pathological gamblers.

## P64

Short-term cognition deficits during alcohol withdrawal are not associated with apoE genotype

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**Background and aims:** This prospective study was undertaken to investigate a possible association between the clinically well known cognition deficits during alcohol withdrawal and apolipoprotein E4 (ApoE4) genotype, which has been discussed to be a risk factor for cognitive impairment in numerous studies.

**Methods:** One hundred and seventy-two patients with alcohol dependence (137 men, 35 women) were included into the study after admission for withdrawal treatment. Apolipoprotein E genotype was determined in all patients using PCR. Cognition deficits were assessed using the c.I.-Test at admission and after 7 days.

**Results:** Pearson's  $\chi^2$ -test revealed no significant association between the ApoE4 genotype and cognitive deficits for both dates (day 0:  $P = 0.463$ ; day 7:  $P = 0.760$ ). Furthermore, multivariate logistic regression showed no significant association between presence of the ApoE4 allele and cognitive impairment.

**Conclusions:** While apolipoprotein E4 probably plays an important role in alcoholism related brain atrophy and cognition deficits in demented as well as in non-demented healthy elderly people, our findings provide no evidence for an association with short-term cognition deficits during alcohol withdrawal.

## Poster session 2: Biological markers

### P65

Low cholesterol concentrations and criminal behavior in adolescents

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The purpose of our study is to establish whether male with permanently low cholesterol levels have a high risk of criminal behavior. Adolescents of criminal behavior were compared with a reference group of male adolescents with normal behavior (middle age of 17, 5 years). A comparison was also made for measurement of lipid level in subjects a) with suicidal behavior, to get benefit in prison, b) of committed crime in alcoholic intoxication.

We measured serum lipid concentrations in blood of adolescent ( $n = 207$ ) having criminal behavior, which satisfy the criteria of socialized disorders of behaviors of ICD - 10. They have made various crimes, including murders.

Total cholesterol serum, LHD ( $P < 0.001$ ), LLD ( $P < 0.02$ ) in juvenile offenders was below an corresponding parameter of control group of safe children ( $n = 40$ ). The appropriate dynamics is found by estimation of low-density lipoproteins ( $P < 0.02$ ). In offenders it was not found authentic reduction concentration triglycerides of serum. The total cholesterol of serum, high-density lipoproteins in teenagers ( $n = 20$ ) having a demonstrational suicide for advantage were lower ( $P < 0.01$ ) in comparison with the common criminal group. Only level of general cholesterol of serum of teenagers committed a crime in alcoholic intoxication was lower ( $P < 0.05$ ). The quantity of other serum cholesterol in teenagers had not changed. The specified distribution of separate classes of cholesterol in groups teenagers was combined with absence of authentic changes in parameters of sizes of atherogenic and Qetelet indexes.

### P66

Depressive component of affective temperaments is linked to the 5HTTLPR polymorphism of the serotonin transporter gene

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**Background:** There is a growing body of evidence that the specific affective temperament types (hyperthymic, cyclothymic, depressive, irritable, anxious) are the subaffective/subthreshold (trait-related) manifestations, and frequently the precursors of bipolar and unipolar major mood disorders (Akiskal, 2002). It is well documented that central serotonergic function is dysregulated in a substantial part of patients with major depressive episode, and recently a significant association between the s allele of the 5-HT transporter gene and major/subthreshold depression has also been reported (Gonda et al. 2005).

**Methods:** The authors have investigated the 5HTTLPR polymorphism of the 5-HT transporter gene and the affective temperament scores as measured by the TEMPS-A (Akiskal et al. 2005) in 139 females without any past or current DSM-IV Axis I diagnosis.

**Results:** A significant association has been found between the s allele of the 5-HT transporter gene and depressive, cyclothymic,

irritable and anxious temperaments, but not in case of the hyperthymic temperament.

**Conclusion:** In line with earlier reports on the association between the s allele of the 5-HT transporter gene and major as well as subthreshold depression (Gonda et al., 2005), our present findings suggest a strong relationship between the s allele of the 5-HT transporter gene and the depressive component of personality even on the temperamental level. Further studies are needed to clarify the possible genetic components of the hyperthymia-mania trait-state continuum.

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## P67

Biological prognostic markers of ecology-induced organic mental disorders

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Forty children (ages 3–7) with organic mental disorders, living in Transbaikalian district with unfavourable ecology have been studied.

All the children involved underwent a clinical examination and were considered somatically healthy. Their immune status was estimated by standard methods, special neuroimmune characteristics were defined with the help of the firm-phased immune-enzyme assay.

It was revealed that all the children with MR studied showed the depression of cell-immunity and humoral-immunity. Those children had also increase of proinflammatory cytokines (IL-6, IL-1 $\beta$  and TNF- $\alpha$ ), autoantibodies to neuron growth factor (aa/b to NGF) and to myelin-associated glycoprotein (aa/b to MAG) and decrease of brain-derived neurotrophic factor (NTF), which testify to the intensity and activity of their cerebral residual organic damage.

Children were administered both drug treatment and rehabilitation measures, including neurometabolics (kortexin, cerebrolisin, pantogam), antioxidants and vascular preparations and special psychological and educational correction classes. After 3 months therapy it was revealed good clinic results in cognitive functions (memory, attention, etc) and favourable neuroimmune changes were found. There was significant increase of immunocompetent cells, immunoglobulins, decrease of proinflammatory cytokines, a/b to NGF, aa/b to MAG and increase of NTF.

To summarise, children with ecology—induced mental retardation were found to have some neuroimmune disorders which testify to the intensity and activity of their cerebral residual organic damage. Study of correlation between neuroimmune and rehabilitation values makes it possible to determine favourable prognostic markers—decrease of serum levels of neuron-specific enolase, myelin-associated glycoprotein antibodies and increase of brain-derived neurotrophic factor.

## P68

A study on the polymorphism of COMT met/val and cognitive function in han chinese children with Tourette's syndrome

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**Objective:** Tourette's syndrome (TS) is a childhood-onset neuropsychiatric disorder characterised by multiple motor and vocal tics

lasting more than 1 year. In this paper, COMT met/val gene polymorphism and cognitive function are studied in Children with Tourette's Syndrome.

**Method:** 1. In the present study, we genotyped a large multiplex sample of GTS affected children for polymorphisms in COMT met/val gene. Associations were tested by the transmission disequilibrium test (TDT). 2. Eighty-six Han Chinese children with GTS were tested using a set of neuropsychological test and compared with 51 healthy control group to understand the relationship between cognitive deficits and genetics.

**Result:** 1. Compared with normal children, The GTS group showed impairment on almost all psychological measures. In some stroop test, combined ADHD group differed from the GTS-alone group. 2. Subjects with the met/met COMT genotype made significantly fewer perseverative errors on the Wisconsin Card Sorting Test than did subjects with the val/val genotype. The individual carried COMT met allele differed from individuals carried COMT val allele in delayed memory, WCST errors and perseverative errors.

**Conclusion:** 1. These data are consistent with the results of other studies examining the role of COMT in cognitive function. GTS subjects with the met allele produced fewer perseverative errors on the Wisconsin Card Sorting Test than subjects with the val allele, suggesting that a functional genetic polymorphism may influence prefrontal cognition.

## P69

Lack of association between 5-HT<sub>2c</sub> receptor promoter polymorphism (HTR2C-759C/T) and body mass index in patients receiving psychopharmacological treatment

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The 5-HT<sub>2c</sub> receptor (HTR2C) promoter polymorphism 759C/T was postulated to be a risk factor for obesity and weight gain during antipsychotic treatment (C allele associated with weight gain). Since weight gain is a common problem during several psychopharmacological treatments, we included 82 patients in our study [male  $n = 33$  (40%), female  $n = 49$  (60%)] suffering from ICD-10 defined affective disorders [depression  $n = 60$  (74%), bipolar disorder  $n = 19$  (23%), schizoaffective disorder  $n = 2$  (2%), mixed anxiety and depressive disorder  $n = 1$  (1%)]. The aim of the present study was to evaluate if there is an association of HTR2C promoter polymorphism 759C/T with body mass index (BMI) in patients receiving different psychopharmacological treatment schemes (e.g. antidepressants, antipsychotics, anticonvulsants and benzodiazepines) for at least several weeks in a naturalistic setting. The CC genotype had a frequency of 84% ( $n = 69$ ) in our patient sample, the CT genotype 10% ( $n = 8$ ), and the TT genotype 6% ( $n = 5$ ). As a result, we could not detect an association between HTR2C 759C/T genotypes (CC, CT, TT) and BMI (ANOVA;  $P = 0.58$ ). Patients with CC genotype had a mean BMI of 25.3, patients with CT genotype had a mean BMI score of 24.2 and patients with TT genotype had the lowest mean BMI of 23.33.

In conclusion, the effect of this genotype on BMI seems to be not strong enough to be detectable in our small sample. Further pharmacogenetic studies with sufficient power are warranted.

**P70**

Searching for pandas clues: antineuronal antibodies in a group of children with obsessive-compulsive disorder and tourette syndrome

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An autoimmune hypothesis has been suggested for early onset Obsessive Compulsive Disorder and Tourette syndrome. The term paediatric autoimmune neuropsychiatric disorders associated with streptococcal infection (PANDAS) has generated controversy as to the identification of this aetiological subtype of OCD and TS, which is related to a Group A beta haemolytic streptococcal (GABHS) infection that triggers an autoimmune response. Antineuronal antibodies have been studied and found in the sera of some patients with these disorders, and they are thought to cross-react with streptococcal and basal ganglia antigens.

The study included 32 prepubertal-onset OCD patients, 21 with TS diagnosis (some of them meeting criteria for PANDAS) and 19 normal children, all of them aged between 9 and 17 years. Antibodies were assayed by immunohistochemistry and immunoblotting. Special attention was paid to methodology and a high serum dilution was used to minimize non-specific binding.

No anti-basal ganglia antibodies were detected by immunohistochemistry in any of the samples. Two different proteins, with molecular weights of 86 and 55 kDa (found in seven patients), were the most frequently found to be reacting with the sera of patients.

Although the hypothesis of an autoimmune process underlying some patients with OCD or TS is supported by the present study, further studies are needed.

**P71**

Eating disorder as biological marker of addiction

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**Background and aims:** Pica is the persistent and compulsive eating of non-food substances (clay, chalk, starch). Disorders of taste and olfaction are associated with iron and zinc deficiency, mental disorders and cultural traditions. Craving for scent of petrol, acetone is observed in such patients. Obsession and compulsion are included in pica and addiction. We supposed that gustatory and olfactory disorders are physiological ground for addiction. The goal of our investigation was to examine this hypothesis.

**Methods:** We examined 400 students at age from 15 to 19 years. Clinical, psychological, biochemical, immunological methods are used.

**Results:** Pathological gustatory and olfactory sensations are registered in childhood and adolescence more than in half of the cases. The signs of addiction are detected about half of the cases. Features of addiction are found often in 1.5 ( $P < 0.05$ ) times beside students having sensory disorders. Iron deficiency and eating, anxious, cognitive, depressive, immune disorders are found often beside them. We have good results of sensory therapy (aromatherapy) in students. Anxiolytic and immunoprotective effects of some fragrances (labdanum, citrus, pine) were demonstrated.

**Conclusion:** Pica and olfactory craving are a behavioral pattern relieving addiction. Sensory disorders can indicate predisposition to the abuse of psychoactive substances. Perhaps physiological vulnerability may be corrected by iron therapy in some cases. Addiction-prone individuals (smoking) were best responders to aromatherapy.

**Poster Session 2: Brain Imaging****P72**

Silent stroke and cortical cerebral atrophy in psychiatric patients

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The aims of the present study were to analyze frequency silent stroke and cortical cerebral atrophy appearance in psychiatric patients with cognitive dysfunction. There were analyzed 194 patients with cognitive dysfunction found on WB-sp scale related to age, sex, education level, period of psychiatric treatment, psychiatric diagnosis, neurological deficits and results of CT scans of brain. Results were analyzed applying descriptive statistics. Average age of the analyzed group of patients is 48 years with average period of psychiatric treatment of 6 years. In analyzed group 21% of patients had posttraumatic stress disorder (PTSD) with depressive disorders, 13.9% of patients had Complex PTSD, 11.3% of patients had PTSD, 14.4% of patients had depression and 7.7% of patients had postcommotio syndrome. Cortical cerebral atrophy was found in 73.7% of patients and silent infarctus were found in 29.9% of patients. Silent stroke was found in 42.8% of patients with depression, 24.4% of patients with PTSD and depression, 36.4% of patients with PTSD and in 42.8% of patients with psychotic disorders. Related to atrophic changes, 70.4% of patients with Complex PTSD, 81.3% of patients with PTSD and alcoholism, 84.6% of patients with alcoholism, 77.3% of patients with PTSD and 67.9% of patients with depression had atrophic changes.

Cerebral cortical atrophy statistically significantly appears more frequently in patients with PTSD, Complex PTSD in comorbidity with alcoholism and depression, while silent stroke is more frequent in patients with depression.

**P73**

Neurological soft signs and cerebral measurement investigated by means of mri in schizophrenic patients

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**Background and aims:** Neurophysiological research has shown a neurological soft sign (NSS) characteristic prevalence in schizophrenic patients, and correlations between NSS and the most frequently cerebral alterations. Aim of this study was to investigate, by means of MRI, the quantitative alterations of cortical and subcortical structures and their correlation with NSS in a sample of schizophrenic patients.

**Materials and methods:** Linear measures of lateral ventricular (Evan's Index), third ventricular (Third Ventricular Width), hippocampal (Interuncal Index) and cerebellar (Verm Cerebellar Index) atrophy were made on magnified MR images of 33 patients with a DSM IV diagnoses of chronic schizophrenia. NSS were evaluated with the Buchanan and Heinrich's Neurological Evaluation Scale (NES).

**Results and conclusions:** The lateral ventricular enlargement showed to be correlated with right stereognosis item ( $P = 0.001$ ). Hippocampal atrophy, with right stereognosis item ( $P = 0.023$ ), with forefinger—right thumb opposition ( $P = 0.004$ ), forefinger—left thumb opposition ( $P = 0.029$ ) and face—hand extinction ( $P = 0.26$ ). Third ventricle enlargement showed to be correlated with forefinger—right thumb opposition ( $P = 0.001$ ), forefinger—left thumb opposition ( $P = 0.021$ ) and total sensorial integration ( $P = 0.012$ ). Cerebellar atrophy showed to be correlated with rhythmic drumming item

( $P = 0.042$ ), forefinger—right thumb opposition ( $P = 0.007$ ), forefinger—left thumb opposition ( $P = 0.026$ ), left specular movements ( $P = 0.049$ ), face-hand extinction ( $P = 0.001$ ), right—left confusion ( $P = 0.005$ ) and with left forefinger-nose index ( $P = 0.032$ ). Results obtained confirm the correlation between NSS and neuroanatomical alterations in schizophrenia.

#### P74

Effect of acute tryptophan depletion on the neural response to happy and sad faces

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**Background:** Central serotonin (5HT) plays a major role in emotional processing. We used functional neuroimaging to investigate the effects of experimentally manipulating central 5HT levels on the regional neural response to happy and sad facial expressions.

**Methods:** Ten healthy right-handed participants were scanned on two occasions, at least 1 week apart, using functional Magnetic Resonance Imaging (fMRI). Participants undertook an implicit emotional processing task in which they viewed happy/sad/neutral faces. Prior to each scanning session participants received a tryptophan-free or a balanced amino acid drink, in a double-blind design.

**Results:** Tryptophan depletion lowered total plasma tryptophan concentration by 80%. There was no significant effect on subjective mood ratings or on response accuracy, but reaction times were slower following ATD than following placebo. Compared to sham depletion, ATD was associated with attenuated activation in the right medial/inferior frontal gyrus, the posterior cingulate cortex, the occipital and parietal cortex bilaterally, and the right hippocampus, claustrum and insula. Conversely, ATD was associated with increased activation in the left inferior frontal gyrus. A differential effect of ATD on the processing of happy and sad faces was detected in the right putamen and in the left superior temporal gyrus.

**Conclusions:** In several regions the neural response to processing emotional faces is significantly modulated by central serotonin. Moreover, in certain areas this effect of serotonin depends on the emotional valence of the stimulus.

#### P75

The importance of magnetoencephalography (MEG) in the study of the pathophysiology of schizophrenia

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Magnetoencephalography (MEG) is a noninvasive research tool which has been used in the fields of Neuroscience and Neuropsychiatry. It is based in the Superconducting Quantum Interference Device technology, detects and measures extracranial Magnetic Fields (MFs) generated by Electro-ionic Currents present inside the dendritic components of the cortical (pyramidal) neural cells, which have a tangential orientation with the cranial surface. Its broad utility, in the field of Neuropsychiatry, includes the localisation of epileptic activity area, the detection of the hypoperfusion brain's area related with stroke, and, more recently, the study the Neuropsychological Correlates (NCs) of some Psychiatric Disorders.

In this short communication, it will be review the basic physical principles of MEG Instrumentation and the most important NCs revealed through MEG relevant in the pathophysiology of Schizophrenia Spectrum Disorders (SSDs). It will be review the

abnormal interhemispheric asymmetry of the evoked MF N100m, in patients suffering from some types of Schizophrenia, and the anomalous magnetic Mismatch Negativity, reflecting a disturbance in the neural system that indexes the Auditory Sensory Memory, which characterises the physiopathology of the SSDs.

#### P76

fMRI study of pitch changes in language and music

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**Introduction:** Prosody comprises the non-verbal part of oral communication. It's neural basis is less well understood than lexical, grammatical and articulatory processes. We evaluated the prosodic subcomponent of pitch, and utilized a matched musical task to remove phonological information processing. We hypothesised bitemporal and right frontal activation would occur, with sentence tasks preferentially activating the left side, music the right.

**Methods:** Twelve volunteers completed a music and sentence discrimination task, deciding if a stimulus pair was identical or had an internal pitch difference. Music pairs were matched to their sentence analogue for fundamental frequency and pitch change. Echoplanar images were acquired on a 1.5 Tesla MRI scanner.

**Results:** Sentence tasks activated the bilateral superior temporal gyri (STG), the left superior and inferior parietal lobules and right inferior and middle frontal gyri. Music tasks activated bilateral STG, inferior parietal and inferior frontal gyri.

Difference maps showed relatively increased left sided activation in the sentence task, whilst the music task had relatively increased activation in the right hemisphere.

**Discussion:** Our data is the first to offer a neuroimaging correlate of the concept of shared neural resources in pitch processing. Common areas of activation cannot be ascribed to the confounder of higher level analysis, frequently encountered when testing 'emotive-levels' of sentence level stimuli.

Our data support the idea that prosodic processing cannot simply be ascribed to the right hemisphere, but rather a large-scale, spatially distributed bilateral network is engaged.

#### P77

Correlations of cerebral perfusion (SPECT) in major depression: report of a large series

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**Aim:** There is an expanding literature showing functional abnormalities in cerebral metabolism and perfusion in major depression. However the results of imaging studies are far from equivocal and do not permit the clinician to rely on functional brain imaging in the assessment and treatment of this disorder. The aim of this study was to evaluate the correlation of severity of major depression and perfusion abnormalities as measured by SPECT in a naturalistic clinical population.

**Methods:** We examined regional perfusion by using 99m Tc-ECD SPECT in a series of 60 consecutively admitted inpatients from October 2002 to December 2003. (University Hospital Ghent)

Inclusion criterion was a primary DSM IV-TR diagnosis of a major depressive episode. Medication was allowed. Exclusion criteria were substance abuse, ECT in the past 12 months and neurological diseases.

Severity of depression was measured by Beck Depression Inventory II (BDI-II). Bivariate correlates of a voxel based analysis of perfusion and severity of depression (BDI) was performed using SPSS 12.0.

**Results:** Mean age of the patients (22 male/38 female) was 42 years (S.D. 10 years). There was a negative correlation between BDI ( $P < 0.05$ ) and the left lateral prefrontal cortex, the gyrus precentralis and the right lateral prefrontal region. A positive correlation was found with the gyrus cingulus posterior.

**Conclusion:** In this large naturalistic sample of inpatients severity of depression was associated with a hypoperfusion in the bilateral prefrontal region left and an increased perfusion in the gyrus cingulus posterior.

## P78

Discrimination of hypnotic states in subjects with dissociative symptomatology: an EEG study

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A possible explanation for the mechanisms underlying dissociations is that subjects that are prone to dissociative symptoms develop autohypnotic states. This could mean that subjects showing dissociative symptoms are more hypnotizable. Taking into account these assumptions we concluded that hypnosis under continuous EEG registration could represent an EEG model for dissociation.

Our study sample consisted of 30 subjects in three groups: 10 subjects with psychiatric diagnosis showing significant values in the dissociative experiences scale (DES), 10 subjects with psychiatric diagnosis and without dissociative symptoms and a control group of 10 healthy subjects without dissociative symptoms. We performed continuous 76 electrode EEG (10/20 Positions) with 15-min resting EEG as a baseline measure and EEG during performance of 20-min hypnosis following a standardized instruction. Subjects were also tested with the Eysenck Personality Questionnaire—Revised (EPQ-R) and the Test d2 testing attention.

Preliminary results show significant differences between the two groups with psychiatric diagnosis and the control group and between the group with and without dissociative symptoms: A) The DES score in subjects with dissociative symptoms correlates significantly with the dimension neuroticism of the EPQ-R. B) There are significant differences in all groups between single phases of hypnosis in FFT measures over the entire EEG frequency spectrum. C) There are significant differences in several frequency bands under hypnosis between subjects with and without dissociative symptoms. These results indicate that specific psychological and EEG factors of subjects with dissociative symptoms can be described forming the basis for an EEG model for dissociation.

## P79

Depressive symptoms and magnetic resonance angiography (MRA) flow signal abnormality

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**Background and aims:** Previous studies have found the association of magnetic resonance imaging (MRI) signal hyperintensities with depressive symptoms. These lesion have been hypothesized to be

ischemic in origin and these findings have supported vascular depression hypothesis. We investigated the association between depressive symptoms and MRA flow signal abnormality that is suggestive of subclinical cerebrovascular disease.

**Methods:** Three hundred and two women (aged 50–77) who participated in health check-up program underwent brain MRA and depressive symptoms were assessed by Beck depression inventory (BDI). The presence of hypertension and diabetes mellitus, body measure index, fasting glucose level, cholesterol level, triglyceride level, high density cholesterol level, Hemoglobin A1c level, and high sensitivity CRP level were also assessed.

**Results:** Forty-eight women had MRA flow signal abnormality (15.9%). The association between depressive symptoms and the presence of MRA flow signal abnormality was statistically significant ( $P < 0.05$ ). The presence of hypertension was associated with the presence of MRA flow signal abnormality ( $P < 0.01$ ). Variables including age and body composition indices were not associated with the presence of MRA flow signal abnormality but associated with the presence of hypertension.

**Conclusions:** Depressive symptoms are related to MRA flow signal abnormality. This findings support vascular depression hypothesis. The atherosclerosis appears to play an important role in the pathogenesis.

## Poster Session 2: Cognitive Enhancing Drugs

### P80

Use of cerebrolysin for activating processes of cerebration among handicapped children and children with mental retardation

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**Purpose of the study:** Studying effects of Cerebrolysin on psychopathological and mental disorders among handicapped children and children with mental retardation.

**Methods:** Clinical and psychopathological method, psychological-pedagogical estimation, estimation using "Raven's color progressive matrixes", the Clinical Global Impression (CGI) scale, standardized estimation of psychopathological symptoms magnitude using a scale specially developed by the authors, mathematical and statistical methods.

**Summary of results and statistical assessments:** The obtained results are proving positive effect of Cerebrolysin administration on stimulating mental activity among patients with moderate mental retardation, which is confirmed by CPM test. Efficacy of Cerebrolysin injections is also proved by positive dynamics in psychopathological disorders among children with mental retardation. It is important to emphasize that administration of Cerebrolysin has not been associated with epileptic seizures among patients with epileptic syndrome in the observation group. Cerebrolysin is producing a positive effect on the course of infectious diseases, reducing their severity and has certain prevention properties. An assumption can be made that Cerebrolysin is also producing modulating effect on immune system. Cerebrolysin administration has a positive association with social and educational strategies and productive ability.

**Conclusion:** Medical effects of Cerebrolysin in combination with traditional pharmacological therapy and psychological and pedagogical education are opening large opportunities for treating this group of patients and promotes the increase of their adaptation and social potential, and also for improving their quality of life as a whole.

**P81**

Dopaminergic D1 antagonism impairs and D1 stimulation enhances acquisition of a novel spatial cognition task, active allothetic place avoidance

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Place navigation requires a brain representation of the environment in the form of a cognitive map. Role of dopaminergic neurotransmission in spatial behavior was studied with various results.

Aim of our study was to investigate role of D1 receptors in active allothetic place avoidance (AAPA), requiring animals to actively avoid a room-frame-defined sector on a rotating arena. A unique feature of this task is that rats must solve a conflict between two discordant subsets of spatial stimuli (defined in arena and room frames) and select the room frame as the relevant one for AAPA solution.

We studied the effect of D1 antagonist SCH23390 (0.05 mg/kg i.p.) and D1 agonist A77636 (1 mg/kg i.p.) injected 20 min prior to training on the acquisition of AAPA. There were four daily sessions, each lasting 20 min.

SCH 23390 decreased slightly locomotion and increased number of errors in the AAPA, it also decreased the maximum time of successful avoidance. A77636 did not change the locomotion, and it decreased significantly the number of errors in sessions 2–4. It is concluded that D1 receptors exert a modulatory activity on the neural circuits underlying the behavior in the AAPA. This study was supported by grants GACR 309/03/P126 and MSMT CR 1M0002375201.

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## Poster session 2: Cognitive psychotherapy

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**P82**

Perceived motivations for gambling: implications for cognitive therapy

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Pathological gambling is frequently associated with addiction or obsessive-compulsive disorder. It has been shown that cognitive factors are involved in persistence at gambling (Ladouceur and Walker, 1996; Toneatto, 1999), but few studies investigated the motivations for gambling (Raylu and Oei, 2002). The cognitive theory of gambling hypothesized that motivation for gambling is to win money (Walker and al., 2003). However, it seems that some gamblers do not recognize the money as their motivation for gamble. This absence of perception is therefore an obstacle to pursue the cognitive therapy. The aim of this study is 1) to determine the proportion of pathological gamblers (PGs) not perceiving money as their main motivation for gamble, and 2) to know the position of their motivation for money in the sequence of others motivations. PGs ( $N = 87$ ) treated with the cognitive approach between 1997 and 2005 at the Center for Excessive Gambling were asked to mentioned their first four motivations for gambling and to classify them in descending order. Four groups of motivations were collected. The two first groups are relating to motivations for winning money and the two second ones, to others negative and positive motivations. Preliminary findings suggest that one third ( $n = 26$ ) of the population ( $N = 87$ ) do not perceive winning money as their main motivation for gambling. Furthermore, the difference between the two groups, perceiving to be mainly motivated to gamble for money or not, is significant ( $\chi^2 = 14.08$ ,  $P < 0.001$ ). Findings suggest cognitive strategies are often necessary to perceive money as the main motivation for gambling.

**P83**

Working out of a fairy-tale CBT (FCBT) model for patients with schizophrenia

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A Fairy-tale CBT model for patients with schizophrenia is an independent component of the Complementary Group Psychotherapy conducted by us at the Tbilisi Psycho-social Rehabilitation Center.

The structure of the FCBT model consists of: 1) reading of certain fairy-tales in group; 2) cognitive-behavioral analysis of the fairy-tale; 3) carrying out of appropriate psycho-education; 4) drawing a parallel between a content of the fairy-tale analysis and the group members' own experiences, problems, characteristics, ways of problem resolving, etc.; 5) cognitive-behavioral analysis of the group members' problems.

The use of fairy-tales in the frame of CBT approach has a number of merits: 1) it promotes patients' motivation for attending the sessions; 2) it helps to create a psychotherapeutic atmosphere in group; 3) it facilitates overcoming resistance, "sabotage" from patients; 4) it gives material for cognitive-behavioral analysis; 5) the language of fairy-tale is closer to this contingent of patients and it facilitates communication with them; 6) it helps to pass from pre-logical ways of thinking to logical, scientific modes of thinking; 7) it facilitates to identification of problems and ways of their solution in the patients; etc.

In the FCBT the following aims are distinguished: 1) introducing the patients to the ABC model and some of its versions; 2) developing scientific, research modes of thinking in the patients; 3) cognitive-behavioral education of the patients; 4) identifying automatic, dysfunctional, irrational thoughts in patients; 5) identifying cognitive errors and distortions; 6) reducing the difficulties and distresses arising from psychotic disorders; etc.

**P84**

Development of a computer version of the trail making test (TMT)

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**Background:** The computer version of the original paper and pencil version of Reitan's Trail Making Test (TMT) was improved to minimize the learning effect, which obscures the effects of medication and sleeping on the frontal lobe functions.

**Methods:** In the improved version (New Version), four test patterns appear randomly so that the subject cannot memorize the position and order of appearance of the numbers and letters.

Each subject was asked to do a rehearsal and a test on Old Version TMT.

After 1 hour of laboratory work or reading, the subject was asked to repeat the combination of a rehearsal followed by a test (four trials in total).

After 1 week, the same subject underwent the above series of testing on New Version.

**Results:** In the Old Version, the decrease in work time from the second to fourth trial was  $0.94 \pm 1.54$  s (mean  $\pm$  S.D.) for TMT-A and  $1.29 \pm 4.48$  s for TMT-B.

In the New Version, the corresponding decreases were  $0.33 \pm 0.79$  s and  $0.03 \pm 0.85$  s, respectively.

**Conclusions:** In the New Version, the position and order of appearance of the numbers and letters became difficult to remember even for young adults, thus eliminating the learning effect.

**P85**

Nonbenzodiazepine and benzodiazepine hypnotic comparative analysis in organic conditions secondary insomnia

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**Background:** Patients admitted in a general hospital with somatic disorders often require a psychiatric exam for secondary insomnia. A therapeutic approach to this symptom must take in account pharmacologic factors (metabolisation, elimination, interactions with other drugs administered).

**Objective:** The objective of this study was to determine if there is a superiority of nonbenzodiazepine vs. benzodiazepine treatment of insomnia in patients with somatic conditions.

**Method:** A group of 40 patients, six women and 34 men, age between 33 and 65, with admissions in our hospital for various organic diseases (23 gastrointestinal diseases, 10 cardiovascular diseases, seven cerebrovascular disorders) was divided in two equally groups, each of them receiving either zolpidem 10 mg/day or diazepam 10 mg/day, overnight. An assessment using CGI-I and Visual Analogic Scale (VAS) was repeated weekly for 3 weeks.

**Results:** The first group obtained a greater decrease than the second (75.6% compared to 73.2%) on CGI-I and VAS. Regarding the onset of action there was reported no difference in the two groups but there was a difference in the tolerance: while the first group showed the same efficacy at an equal dose after 3 weeks, the diazepam group needed an increase in dose with 3.4 mg (mean dosage).

**Conclusion:** Zolpidem was as efficient as diazepam for treating organic secondary insomnia and did not developed the tolerance observed in diazepam group.

**P86**

Effectiveness of cognitive behavioral therapy in dual diagnosis: panic disorder and major depressive disorder

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**Background:** Cognitive behavioral therapy (CBT) uses a variety of techniques targeting overlapping depressive-anxious symptoms like insomnia, social withdrawal, excessive worrying, catastrophic expectations, assertive deficits.

**Objective:** To establish efficacy of a CBT algorithm for those patients with counterindication in pharmacological treatment and/or preferences for psychotherapy that present a dual panic disorder (PD) and major depressive disorder (MDD).

**Methods:** We selected seven patients, two male and five female, age between 23 and 40, with MDD and PD without agoraphobia diagnosis according to DSM IV TR criteria. Selecting psychotherapy as the treatment of choice in these cases of comorbidity was imposed by one of the two factors: somatic concerns and patient's preference. We first established a symptomatology hierarchization. Afterthat, we targeted symptoms using behavioural techniques like monitoring activities, sleep hygiene education, exposure to fear cues, breathing retraining as well as cognitive techniques like finding alternatives, physiological explanations for panic symptoms, pro and con's analysis. During the 8 weeks of the study we assessed patients using Beck Depression Inventory -21 items (BDI), HAM-A and Acute Panic Inventory (API) every week.

**Results:** All patients that have finished this program improved significantly, as reflected in BDI (from 35 to 19), HAMA (from 49 to 22) and API (from 60 to 18). One dropout registered due to

noncompliance was registered after 2 weeks and an alternative treatment was found for this specific patient.

**Conclusions:** CBT is a form of psychotherapy well accepted in treating PD with MDD patients that refuse psychopharmacologic intervention or have counterindications for it.

**P87**

Psychotherapeutic correction of youth criminal behaviour

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Cognitive behavioural psychotherapy should be used as a main method of psychotherapy of youth sexual behaviour correction. The goal of this method is to help the patient to take responsibility for the behaviour which leads to the crime and to develop skills of cognitive and behavioural control which will allow avoiding the at-risk-situations which can result in a crime repetition. To meet this goal one should accomplish five tasks: 1) make the patient understand the necessity of treatment and motivate him/her; 2) teach him/her to analyze a personal behaviour critically and get rid of prepossession to the victim. 3) make a patient understand his/her sexual stimulation; 4) strengthen his/her ability to feel other person; 5) be aware of personal deviant sexuality and strengthen patients social competence. Psychotherapeutic treatment should include sexually motivated training. The goal of this training is to force a young person to treat his/her criminal sexual behaviour negatively and develop a new normal type of sexual motivation, form adequate motives of the coitus. There are three phases of the training: informational, reconstructive and supportive. It is not necessary to use the abovementioned method if a patient has an increased attentiveness, signs mental retardation and cognitive limitations. In this case a direct psychotherapeutic influence is used; with the elements of rational psychotherapy and imperative emphasis on sexually motivated sphere. Individual psychotherapy may be effective in imperative, suggestive and directive forms with a fixed accent on the negative consequences of the criminal sexual behaviour.

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**Poster session 2: Depression**

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**P88**

A clinical study of hypochondriac symptoms in depression

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**Objective:** To clarify the nature of hypochondriac symptoms in depression.

**Methods:** Based on clinical charts, clinical pictures of depressive inpatients were investigated retrospectively. After comparing clinical features between depressive patients with and without hypochondriac symptoms, the former group was further considered from a structural-dynamic perspective.

**Results:** Of 86 subjects enrolled, 49 exhibited hypochondriac symptoms. These patients tended to be older at diagnosis and admission and were more likely to display depressive delusions than patients in the non-hypochondriac group. Moreover, these patients displayed a variety of psychopathological mechanisms to form hypochondriac symptoms.

**Conclusion:** The meanings of hypochondriac symptoms in depression are so variable that treatment must be pursued with care from the viewpoints of both pharmacotherapy and psychotherapy.

**P89**

Anxiety and depression in ischaemic heart disease

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The prevalence of major depressive disorder (MDD) in patients with ischaemic heart disease (IHD) is about 18–20%, subthreshold depression more than 25%. The structure of MDD in patients with IHD is important for making diagnosis, proposing treatment.

**Methods:** We analyzed 159 inpatients with IHD: 78 with comorbid depression (IHDD), 81 with sporadic depressive symptoms. Diagnosis of depression was made according to ICD-10, clinical symptomatology rated using HAMD-17. Mood/cognitive, somatic, anxiety clusters of depression in IHDD were evaluated and compared with sporadic symptoms of depression in IHD. The goal was to evaluate the proportion of anxiety symptoms in the structure of IHDD and in IHD, and to compare insight in both groups.

**Results:** Somatic symptoms of depression comprised the core cluster of symptoms in both groups. Mood/cognitive and anxiety clusters were on the second place in IHDD, while in IHD group anxiety symptoms prevailed over mood/cognitive symptoms ( $P < 0.05$ ).

The insight in having psychiatric disorder was higher in IHD group than in IHDD ( $P < 0.05$ ). For this reason IHD group revealed higher motivation for psychopharmacotherapy. Patients with IHDD often denied depression.

**Conclusions:** Anxiety symptoms correlate with the insight into having mental disorder (depression) and with the acceptance of psychopharmacotherapy in IHD. Mood/cognitive symptoms of depression in patients with IHDD correlate rather with denial of depression and denial of the need of psychopharmacotherapy. The therapy of anxiety is supposed to have an impact not only on the prognosis of IHD and of depression, but also on quality of patients' life.

**P90**

Escitalopram: post-marketing surveillance in depressed outpatients

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**Purpose:** The efficacy and tolerability of escitalopram was observed in a naturalistic setting in outpatient clinics in the Czech Republic.

**Methods:** This was a 6-month, naturalistic surveillance study conducted in 525 psychiatric outpatients. Clinical response was evaluated using the Zung-Depression-Rating-Scale (ZDRS), and the Clinical Global Impression-Improvement and -Severity (CGI-I and CGI-S) scales. Change from baseline in the ZDRS-SDS index (obtained by dividing the ZDRS raw score by 80) was analysed for each visit (1–2, 4, 8, and 26 weeks).

**Results:** Of the 2664 patients included, 79.8% ( $N = 2126$ ) completed 6-month treatment with escitalopram. Seventy-seven percent of patients started with escitalopram 10 mg and 18.9% with 5 mg. During the study, patients showed a clear improvement in their general severity of illness, and severity of depression, which improved from a baseline ZDRS-SDS index of 66.7–46.5 at 6 months. At endpoint, 76.1% of patients had a CGI-S score of 1 or 2, and 94.9% had a CGI-I score of 1 or 2. Only 3.4% of patients were withdrawn from the study due to non-response to escitalopram and/or worsening of psychopathology. Withdrawal due to adverse events occurred in 138 patients (5.2%). The most frequent adverse events were nausea

(19.9%), headache (6.9%), and increased sweating (6.2%). Low rates of somnolence (3.9%), and sexual dysfunction (4.1%), diarrhoea (4.4%), and dizziness (4.9) were found during this 6-month study.

**Conclusions:** This large naturalistic surveillance provides strong clinical support for the long-term antidepressive efficacy and tolerability of escitalopram in routine clinical practice.

**P91**

Sexual dysfunctions in depressive disorders

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**Aim of the work:** Following the presence of sexual dysfunctions in depressive disorders and their significance in depressive difficulties.

**Material and methods:** The research included 60 people of different sexes, aged 20–50, diagnosed by ICD criteria with Dg.32, in heterosexual relationships and not having previous psychopharmacotherapy.

The research was performed with the following psychiatric scales: HAS to evaluate anxiety, HAM to evaluate depression and the sexuality scale (SS) Snell, W.E., Jr in depressive disorders.

**Results:** During the research we observed that sexual dysfunctions such as inhibited sexual desire and orgasmic dysfunction were found in 63% of the male individuals whereas sexual dysfunctions were in 45% of the female individuals such as inhibited sexual desire and less enjoyed sexual intercourse. The individuals with depressive disorders had higher HAS and HAM scores.

**Conclusion:** Sexual dysfunctions accompany the depressive disorders and as such are significant in the Department of the depressive phenomenology.

**P92**

Cognitive dysfunctions in a large sample of depressed patients in primary care facilities

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**Background and aims:** Cognitive dysfunctions, such as attentional and memory disturbances or reduced executive capacities, are core symptoms of a depressive episode and have major impact on the daily functioning of the patient. This study aimed at investigating the prevalence of cognitive dysfunctions in a large number of primary care patients that were newly diagnosed with a depressive episode.

**Methods:** A large number ( $N = 172$ ) of Belgian general practitioners participated in the study. During a period of 12 months, 856 patients (18–85 years) were screened for depression of whom 801 (68% women) fulfilled the DSM-IV criteria of a depressive episode. The Beck Depression Inventory (BDI) was used as a measure for depression severity and the Supermarket Fluency test and the Digit Symbol Substitution Test were administered as neuropsychological tests.

**Results:** The BDI score was 27.0 (S.D. 9.8, range 20–33) and not significantly different between men and women. Patients had an abnormally low score (defined as  $> 2$  S.D. below average in a normal population) on the Supermarket Fluency test (51.7%) and on the Digit

Symbol Test (41.0%). There were no gender differences. The difference in cognitive scores from both tests was most outspoken in young patients with higher education levels.

**Conclusion:** A substantial amount of depressed patients diagnosed in primary care facilities have significantly reduced cognitive functioning. Neuropsychological tests that are easy to administer can be used to identify these patients in a general practice.

### P93

Lamotrigine in the treatment of resistant depression

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It is known that some molecular actions of lamotrigine on monoamine disposition could account for antidepressant effects. In that way lamotrigine could be an adjunctive therapy in resistant depression.

**Objective:** To evaluate the efficacy of association between an antidepressive medication and lamotrigine in refractory unipolar major depressive disorder.

**Method:** Sixteen patients (nine male, seven female), mean age – 41.3 years, diagnosed in according to DSM IV criteria, evaluated with Hamilton Rating Scale for Depression (HAM-D-17) and Clinical Global Impression Scale Severity and Improvement (CGI) to monitor therapeutic efficacy.

**Results:** Subjects were treated with mean doses: venlafaxine ER—150 mg/day—six patients, mirtazapine sol tab—42 mg/day—five patients, sertraline 160 mg/day—five patients. Mean dose of lamotrigine was 87, 5 mg/day. The evaluations were done at day 1, 7, 14, 21, 28, 42, 56, 84. This association was efficient after 3–4 weeks, with a 25% decrease of HAM-D score. The recovery was predominant at 12 weeks. The analyse of efficacy on core depressive symptoms revealed the decrease of item 1 score (depressed mood), 2 (guilt feelings) and 7 (work and interest). CGI S scores were decreased from 4.87 (day 1) to 3.18 (day 28). Only 12.5% (2/16) were marked ill at D 28, 31.25% (5/16) were moderate ill, 56.25% were mildly ill or borderline ill. Only 2/16 (12.5%) patients were no change, 10/16 (62.5%) were mildly improved and 25% (4/16) were much or very much improved.

**Conclusions:** Lamotrigine might have antidepressive properties in unipolar patients with refractory depression. Further research is certainly warranted.

### P94

A norwegian study of depression and anxiety in women related to childbirth

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**Objective:** The aim of our study is to explore the rate of depression and anxiety in women at different stages during their fertile period in a Norwegian cohort. It has not been convincingly demonstrated that depression is more common after childbirth than at other times during the female reproductive period.

**Method:** From a population based study, a cohort of 14,324 women aged 20–45 years completed the Hospital Anxiety and Depression Rating Scale and gave childbirth information.

**Results:** Our data indicate lower level of anxiety and depression in women during the first postpartum year compared with the next 2 years following childbirth. Women without children demonstrate similar levels of depression as those within 12 months of birth.

**Conclusion:** Both the level of depression and anxiety in the postpartum year is lower compared to later in the motherhood period. During the second year following childbirth an increased level of depression were seen compared to pregnant women and women at the postpartum year, and also compared to women without children.

### P95

Premorbid sleep and general activity circadian profile in depressed patients

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**Objective:** Investigating on patterns of premorbid sleep and general activity circadian profile, which characterizes patients affected by a Depressive Disorder (PDD) compared with healthy individuals (HI), according to a chrono-biological perspective.

**Methods:** Eighty-one patients affected by a DSM-IV Depressive Disorder and 78 healthy individuals were asked to fill a questionnaire about the hourly of awakening, of falling asleep, of maximum appetite, of maximum energy and of maximum mental focusing, during "Adolescence" (12–15 years), "Youth" (16–20 years) and "Present condition" periods. Results from patients and healthy individuals were compared.

**Results:** Statistically significant and tendential differences in the circadian profile arise between PDD and HI classes. In PDD from the "Adolescence" class, the hourly of awakening is anticipated of 25 minutes ( $P = 0.01$ ) compared with healthy individuals; the hourly of falling asleep is anticipated of 18' ( $P = 0.12$ ). In PDD from the "Youth" class, hourly of awakening is anticipated of 47' ( $P = 0.02$ ), the hourly of falling asleep is delayed of 66' ( $P = 0.10$ ); about the hourly of maximum appetite, PDD have morning profile while HI have an evening profile ( $P = 0.02$ ); in PDD, the hourly of maximum mental focusing is delayed of 72' ( $P = 0.10$ ). In PDD from the "Present condition" class, the hourly of awakening is anticipated of 49' ( $P = 0.02$ ), hourly of falling asleep is anticipated of 24' ( $P = 0.06$ ), hourly of maximum mental focusing is delayed of 94' ( $P = 0.04$ ).

**Conclusions:** The results of the study seem to confirm that the analysis of the circadian profile may contribute to individuate patients with a specific vulnerability to depression.

### P96

Use of cannabis and symptoms profile in depressive patients

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**Objectives:** Aims of this study were to explore the temporal relationship between the beginning of cannabis use and the onset of depressive disorders and to assess the impact of substance consumption on clinical manifestations.

**Methods:** Medical reports of depressed inpatients and outpatients were reviewed and 51 patients were selected, 37 males and 14 females,

mean age 27.8, who reported a frequent or daily use of cannabis. Patients using other substances were excluded. In this sample of patients it sought which disorder preceded the other in onset. Then symptoms complained by patients at the first visit were compared to symptoms by another sample of 51 non-users patients matched by age, sex and diagnosis. Pearson's test was performed for statistical analysis.

**Results:** In 48 patients (94.1%) the beginning of cannabis use occurred earlier than disorder onset (mean interval = 4.9 years). There were statistically significant differences in some symptoms reported by the two samples. The following five symptoms were more frequently complained by cannabis users: anhedonia ( $P < 0.05$ ), apathy ( $P < 0.05$ ), social withdrawal ( $P < 0.001$ ), subjective sensation of cognitive impairment ( $P < 0.001$ ), ideas of reference ( $P < 0.05$ ).

**Conclusions:** It seems unlikely that most of patients used cannabis to relieve their affective distress.

It is possible that common factors predisposed to both cannabis use and depressive disorder. However, the onset of depressive symptoms following cannabis use and their clinical profile in consumers is suggestive of a potential role of cannabis in inducing the onset of the disorder or in influencing its clinical expression.

## P97

Changes in subjective dream experience and response to antidepressant treatment

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The present study aimed at investigating the pattern of dream experience in depressed patients before and during treatment, to explore whether changes in subjective dream experience are related to clinical response to antidepressants. A sample of 21 depressed outpatients was examined at baseline, when still symptomatic and unmedicated, then after three and seven weeks of treatment. The Beck Depression Inventory (BDI) and the Montgomery-Asberg Depression Rating Scale (MADRS) were used to assess clinical status during therapy. Investigation of subjective dream experience was carried out using a questionnaire, developed for the study, which examined: dream amount, clearness of dream recall, dream emotional colour, dream-related feelings on awaking and dream complexity. Almost all of patients showed clinical response to therapy, as demonstrated by decrease in BDI and MADRS scores. After 7 weeks of treatment, patients reported significant changes in dream experience, as compared to baseline: increase in dream amount (38.1% of patients); increase in dream recall clearness (from 28.6% to 71.4% of patients); change in incidence of positive (from 9.5% to 38.1%) and negative (from 28.6% to 9.5%) emotional colour; change in incidence of pleasant (from 4.7% to 38.1%) and unpleasant feelings (from 38.1% to 9.5%); no variation in dream complexity emerged. These data show that subjective dream experience is affected by depression and that changes to an opposite direction occur when patients improve; thus, a role of changes in dream experience as a marker of response to antidepressant treatment can be hypothesized.

## P98

Neurocognitive function as predictor of improvement in general functioning upon remission of depression

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**Background and aims:** Depression is associated both with limitations of general functioning and with lower neurocognitive functioning. We investigated to what extent neurocognitive function in the depressive episode predicted improvement in general functioning upon remission of the depressive symptoms.

**Methods:** A group of 30 patients with DSM-diagnosis of major unipolar depression of recurrent sub-type was examined with a neurocognitive test battery. General functioning was assessed by the Global Assessment of Functioning (GAF) scale. Patients were tested while they were depressed, and again 2 years later, while they were partly or totally recovered. A linear regression model with psychomotor speed at baseline as independent variable and improvement in GAF total score between baseline and follow-up as dependent variable was used.

**Results:** Lower psychomotor speed within the depressive episode predicted lower improvement in general functioning during remission of the depressive symptoms. After the effect of improvement in depressive symptomatology on improvement in GAF score had been controlled for, psychomotor speed at baseline explained 32% of the total variance in improvement of general functioning (95% CI = 0.17; 7.70,  $P = 0.041$ ).

**Conclusion:** This finding suggests that psychomotor retardation is associated with lower improvement potential with regard to general functioning in chronic depression. The finding may support a model in which psychomotor slowing is a marker of underlying pathobiological alterations associated with recurrent depressive episodes.

## P99

An epidemiological survey of patients presenting with 'difficult depression' at private psychiatric clinics throughout France (dedicace survey)

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**Objective:** This epidemiological survey characterized the clinical profiles of psychiatric patients according to their depressive disorders and co-morbidities, evaluated factors leading to functional handicap, and documented management and care of these patients.

**Methods:** Adult patients showing symptoms of depressive disorders, who had taken antidepressant monotherapy for at least 6 weeks but with insufficient response to treatment, and who were not hospitalized were included in the survey.

**Results:** A total of 855 patients (67.2% female; mean age 45.1 ± 12.4 years) were examined by 304 investigators during this 8 months survey. Most patients (93.5%) suffered from a major depressive episode. Dysthymia was diagnosed by investigators in 24.6% of patients compared with 58.0% using DSM-IV criteria (M.I.N.I.). Patients diagnosed with major depression were characterized as having unipolar (78.5%), mixed bipolar (6.4%), or non-mixed bipolar (15.1%) episodes. The Sheehan Disability Scale (SDS) was used to identify factors linked to professional, social and domestic handicap. Patients with these handicaps showed significant positive correlations ( $P < 0.05$ ) with a major depressive episode and a history of suicidal behaviour or psychiatric hospitalization. At the end of the survey, psychiatrists were prescribing antidepressants to more patients than at the beginning (93.8% vs. 77.4%).

**Conclusion:** This survey suggests that psychiatrists in private practice need to be especially careful to detect 'difficult depression', in

particular when assessing the subsyndromal symptoms arising prior to major depression. Only a proper diagnosis of this condition will ensure that patients can benefit from optimal pharmacological and non pharmacological treatment.

## P100

Antenatal depression in high risk women

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**Background and aims:** To determine the prevalence and correlates of Antenatal Depression and to establish the appropriateness of using the Edinburgh Postnatal Depression Scale (EPDS) with inner-city, mostly Aboriginal (Canadian Native) women.

**Methods:** Convenience sample of 50 women enrolled in a prenatal outreach program. Women were recruited and the EPDS was administered during regular home visits. An EPDS score of >10 indicates minor depressive symptoms, while >13 indicates probable major depression.

**Results:** Thirty-nine (78%) women participated; 27% reported symptoms consistent with major depression and 45% reported symptoms of mild depression. Sixty-four percent of participants were Aboriginal. Aboriginal women had higher levels of depressive symptoms than the non-Aboriginal women. All of the alcohol users scored >13. Women using the greatest amounts or those who had stopped using tobacco or alcohol during pregnancy had more depressive symptoms than those who had never used or had quit before pregnancy. Twenty-three percent reported suicidal thoughts, with 40% of the depressed women expressing suicidal ideation in the preceding week. Usability of the EPDS within this population was established.

**Conclusions:** This is the first known reported study of AD in Canadian Aboriginal women. It is particularly noteworthy because of the frequency of depression, suicidal thoughts, and concurrent risk behaviours, particularly smoking and illicit drug use, in these vulnerable women. Those women who smoke and drink in excess or those who quit smoking and drinking during pregnancy need to be monitored closely to identify depression and treated and supported to prevent sequelae to mother and child.

## P101

Suicidal behavior in sexual abuse adolescent girls

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**Objective:** To investigate the effects of sexual abuse on adolescent girls and suicidal behavior.

**Method:** The research included 20 adolescent girls, age 14–18, treated at the Department for child and adolescent psychiatry.

**Results:** Along with other kinds of distress, suicidal adolescent girls have experienced sexual abuse and family dysfunction. The effects of childhood sexual abuse were large. Risk of repeated suicide attempts was great for youth with a sexual abuse history.

**Conclusion:** Adolescent girls with history of sexual abuse are at greater risk of becoming depressed or suicidal during adolescence. Adolescence is the most vulnerable period for those adolescents who may attempt suicide repeatedly.

Keywords: Suicidal behavior; Sexual abuse; Adolescent girls

## P102

One-year follow-up of subthalamic deep brain stimulation in parkinson's disease

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**Objectives:** Several cases of transient acute depression or manic symptoms are reported in the literature after bilateral subthalamic nucleus (STN) deep brain stimulation in patients with Parkinson's disease. We have few data about their frequency or cause. Different hypotheses involve premorbid personality disorders or thymic past history. Another hypothesis involve subthalamic nucleus.

**Methods:** We elaborate a 1 year prospective study to evaluate mood disorders frequency and physiological mechanisms of 20 Parkinsonian patients treated by bilateral STN stimulation. We enrolled in our sample the 20 first consecutive Parkinsonians who were selected to be operated. Evaluation consists of pre and post-operative psychiatric interview and scales: Montgomery and Asberg Depression Rating Scale (MADRS), Mini International Neuropsychiatric Inventory (MINI), Scale Inventory Personality Disorder (SIPD), Mania Assessment Scale (Bech), Assessment of Depression (Beck), Apathic scale and neuropsychological tests.

**Results:** After 1 year, among 18 operated patients, temporary results show one case of hypomania with behavioral disorder (DSM-IV criteria). This patient, without thymic history, presented a paranoid personality disorder. Using tools, we did not identify in the others 17 patients' acute depression or manic symptoms, but seven cases of discordance between auto and hetero evaluation on depressive symptoms.

**Conclusion:** Data are still on analyzed, but this case draw our attention to the effects of STN stimulation on mood and behavioral disorders. The difference between auto and hetero evaluation in depressive symptoms may be related with a problem of insight. Lastly, importance of psychiatric follow-up is revealed by these results.

## P103

Characteristics of Hungarian adolescents with self-injurious behavior. Results of a pilot study

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Basic symptoms of deliberate self-harm, of suicidal behavior and of depression were examined in high schoolers in the framework of a community-based survey. The Hungarian pilot version of the Ottawa Self-injury Inventory for adolescents (OSI, Nixon and Cloutier, 2002) was administered to 450, 14 through 18 years old adolescents in three Veszprem (Transdanubian region, Hungary) high schools. Key symptoms of depression were measured with four relevant items of Hungarian standard version of Beck Depression Inventory. Twenty-six students with self-injurious behavior were selected. Descriptive statistics and significant inter-correlations of symptoms were presented. Depressive symptoms correlated with self-injurious ideas

(impulses, thought) as expected but completed self-harm attacks failed to have significant relationships with depression.

### P104

Social support of patients suffering from affective disorders

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**Introduction:** A social network is a certain number of people with whom a given person, who is the central in the network, contacts. These people are regarded as important because of many different reasons. One of the functions of this social network is support. Apart from estimating the size of the network it is also important to evaluate the amount of support and its kinds as well as using network members as the sources of support.

The aim of the research was analysis of the structure of social networks and different kinds and sources of support receiving by patients suffering from unipolar and bipolar depression.

**Material:** The research covered out patients with unipolar/bipolar depression ( $n = 60$ ) after hospitalization in Psychiatry Clinic.

The patients were interviewed according to the same questionnaire. Social environment of the patients was examined with the use of Cohen's and Bizon's questionnaires.

**Results:** It was shown that in comparison with the control group the patients had fewer social networks and fewer people from their social environment were the sources of support. Patients with bipolar depression had in their environment more sources of support than patients suffering from unipolar depression. Both, however, received less appraisal, belonging tangible and self-esteem support than people from the control group.

**Conclusions:** Patients receive in their surrounding less support than healthy people. Learning patient's environment, in particularly recognizing people important for him or her, can help the doctor in the therapy. These information may be used for planning therapeutic procedures both in hospital conditions and outside.

### P105

Psychopathological reactions after mastectomy

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The psychopathological sequel to mastectomy consists generally of depression and anxiety as a result of surgical amputation of a woman's organ, probably essential to her adaptation, self-evaluation, self-concept, femininity and sexual functioning. Our prospective study was an attempt to explore psychopathological reactions, depression and anxiety among the patients that have been undergone total mastectomy for the purpose of breast cancer ( $N = 30$ ), and limited resection for the purpose of benign breast disease ( $N = 30$ ) before and 3 months after surgery, as well as to compare the results obtained among the patients who had received cholecystectomy ( $N = 30$ ). Except standard psychometric instruments employed: Hamilton scale for depression and anxiety, MMPI 201, all patients responded to sexual and marital functioning questionnaire items, devised by the authors. Women with breast cancer showed greater psychological distress in the fields of interpersonal and marital functioning, and also had more negative attitudes toward self and the future. The levels of anxiety decreased but not significantly, while the levels of depression significantly increased 3 months after total mastectomy. The cancer patients had significantly higher total scores for anxiety

and depression before and after surgery comparing with the patients that had been undergone limited breast resection and especially comparing with cholecystectomy subjects, probably due to mixed effects: psychological implications of total mastectomy versus limited breast resection and the influence of cancer on a patient's psychology functioning

### P106

Effects of escitalopram treatment on behavior in adult female and male genetically depressed rats that have been exposed to early life stress

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In order to examine gene-environment interaction and investigate ameliorative effects of early intervention on adult life psychopathology, we superimposed early life maternal deprivation (MD) on an animal model of depression the Flinders Sensitive Line (FSL) and their controls, the Flinders Resistant Line (FRL) rats and studied behavior when the animals reached adulthood.

Female and male FSL and FRL pups were maternally deprived on postnatal days (PND) 2–14 for 180 min, while the control groups were reared normally. On PND 43 the animals were started on a 30 days' escitalopram/vehicle treatment that was given in food pellets. On PND 64–65, Porsolt forced swim test (FST), an indicator of the degree of depression, was performed.

**Results:** I. Baseline: immobility duration as percent of the total test time was higher in FSL both females and males compared to FRL ( $P = 0.03$  and  $P = 0.0002$ , respectively). II. MD increased immobility in both female and male FSL rats ( $P = 0.011$  and  $P < 0.05$ , respectively) but had no effect in the FRL. III. Escitalopram decreased immobility in MD female FSL ( $P = 0.008$ ). In male FSL, escitalopram decreased immobility in both control and MD animals ( $P = 0.0017$  and  $0.025$ , respectively). MD FRL strain was not affected.

**Comments:** Both genes and environment play a role in "depression" but the adult life consequences of early adverse life events will to a significant degree depend on the genetic makeup of an individual. Furthermore, treatment with escitalopram is effective in alleviating adult life pathology.

**Support:** The European Commission GENDEP project LSHB-CT-2003-503428; The Lundbeck Foundation.

### P107

Changes of functional brain activity induced in an emotional task during a 4-week antidepressive treatment

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**Context:** The pathogenesis of depression is still unclear. Several studies found reciprocal interactions between the 5-HT-system and brain derived neurotrophic factor (BDNF) and glutamate, which are known to modulate or affect hippocampal morphology as well as the functional limbic activity in the hippocampus and amygdala complex as well as in other brain regions. With functional MRI it is possible to

investigate the neuroanatomical correlates of the human brain function such as emotion, which is known to be altered in depression.

**Objective:** To examine the changes of the functional brain activity measured with an emotional task in functional MRI during an antidepressive therapy with mirtazapine. Furthermore, to investigate, if fMRI have any impact as a possible biomarker for the clinical outcome of the disease and, if polymorphisms of the serotonin transporter (5-HTTLPR) or the BDNF gene influence the results.

**Design:** Baseline investigation and follow-up after 4 weeks of treatment with a mirtazapine.

**Patients:** Thirty inpatients with a major depression.

**Main outcome measures:** Subjects underwent high resolution magnetic resonance imaging (MRI) and functional MRI. Furthermore, genotyping for the biallelic polymorphisms in the promoter region of the serotonin transporter (5-HTTLPR) and of the BDNF gene are performed.

**Results and discussion:** First data of the study will be presented and will be discussed.

## P108

A prospective 1-year naturalistic follow-up of postpartum major depression: preliminary analysis

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**Objective:** This study examined the clinical course of postpartum major depression (PMD).

**Method:** Prospective, observational, longitudinal study with a cohort of 140 women. All subjects were assessed at intake with the Structured Clinical Interview (SCID) according to DSM-IV criteria for major depressive episode. Follow-up was performed at 2, 6, 12, 18 and 24 months using the Longitudinal Interval Follow-up Evaluation (LIFE-UP), to obtain information prospectively on syndrome and overall illness severity and treatment. Kaplan–Meier curves were constructed to assess the likelihood of partial and full remission.

**Results:** The average follow-up time of the cohort was 57.9 weeks (range: 1–30). 46.4% of cohort completed the 1-year follow-up, while 25% reached the 2-years follow-up. At 6-month follow-up, 60% (CI95%:49.1–68.4) of women with PMD reached, at least, partial remission, while 27.9% (IC95%:18.5–36.3) achieved full remission. After 1-year follow-up 87.3% (IC95%:78.3–92.6) reached partial remission, and 57.8% (IC95%:46.2–66.9) reached full remission. The median time until partial remission was 23 weeks (IC95%:18–27) and 46 weeks in the case of full remission (IC95%:38–62).

**Conclusions:** Postpartum major depression is not a transient phenomenon. The rate of 28% of full remission at 6 months is lower than that reported in other longitudinal studies about non-postpartum unipolar major depression. On the other hand, the rate of 58% of full remission after 1-year in our cohort is similar to that reported in these studies. This could be due to a delay in the onset of treatment and caregiving load factors.

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## P109

Symptoms following abrupt discontinuation of duloxetine treatment in patients with major depressive disorder

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**Background:** Discontinuation symptoms are common following antidepressant treatment. This report characterizes symptoms following abrupt discontinuation of duloxetine.

**Methods:** Data were obtained from nine clinical trials assessing the efficacy and safety of duloxetine in the treatment of major depressive disorder.

**Results:** In a pooled analysis of six short-term trials, discontinuation-emergent adverse events (DEAEs) were reported by 44.3% and 22.9% of duloxetine- and placebo-treated patients, respectively ( $P < 0.05$ ). DEAEs reported significantly and more frequently were dizziness (12.4%), nausea (5.9%), headache (5.3%), paresthesia (2.9%), vomiting (2.4%), irritability (2.4%), and nightmares (2.0%). Dizziness was also the most frequently reported DEAE in 3 long-term trials. Across the short- and long-term data sets, 45.1% of DEAEs had resolved in the duloxetine-treated populations by the end of the respective studies, and the majority of these (65.0%) resolved within 7 days. Most patients rated the severity of their symptoms as mild or moderate. A higher proportion of patients reporting DEAEs were seen with 120 mg/day duloxetine compared with lower doses. For doses between 40 and 80 mg/day duloxetine the proportion of patients reporting at least one DEAE did not differ significantly from placebo. Extended treatment with duloxetine beyond 8–9 weeks did not appear to be associated with an increased incidence or severity of DEAEs.

**Conclusions:** Abrupt discontinuation of duloxetine is associated with a DEAE profile similar to that seen with other selective serotonin reuptake inhibitor and selective serotonin and norepinephrine reuptake inhibitor antidepressants. It is recommended that, whenever possible, clinicians gradually reduce the dose before discontinuation of duloxetine treatment.

## P110

Duloxetine's efficacy in painful symptoms: an analgesic or antidepressant effect?

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**Background:** Duloxetine is a potent and relatively balanced reuptake inhibitor of serotonin (5-HT) and norepinephrine (NE) licensed for the treatment of major depressive disorder (MDD) in Europe, the US and elsewhere, and additionally licensed for the management of diabetic peripheral neuropathic pain (DPNP) in the US. The aim of this poster is to review evidence for the hypothesis that duloxetine's effects on painful symptoms in depression and chronic pain disorders are a direct analgesic effect rather than a “pseudospecific” antidepressant effect.

**Methods:** Data from a number of published studies of duloxetine in MDD and DPNP were examined. In addition, the published literature examining the effects of other antidepressants on painful symptoms (occurring as part of MDD or chronic pain syndromes) was reviewed.

**Results:** A review of data from placebo-controlled studies of duloxetine in MDD suggests duloxetine, as measured by visual analogue scales for pain and other measures, has an effect on painful physical symptoms such as back pain. Path analysis indicates that in depressed patients approximately 50% of this effect is a direct analgesic effect.

Review of a further published study of duloxetine in MDD demonstrated a statistically significant effect of duloxetine on painful symptoms in the absence of statistical separation from placebo on depressive symptoms as measured by the HAMD17 rating scale.

In addition, placebo-controlled studies of duloxetine in the treatment of DPNP in non-depressed patients demonstrate duloxetine's effect on 24-hour average daily pain in DPNP compared with placebo. As depression was excluded, this suggests that observed effects on pain were therefore direct analgesic effects rather than antidepressant effects. Path analysis of the data suggests that the direct analgesic action of duloxetine accounts for approximately 90% of the observed effect.

**Conclusions:** Pain is a complex experience, involving both the physiological responses of the nociceptive system, and the processing of that information in brain regions associated with emotion. While some effects of duloxetine on painful symptoms can be accounted for by its antidepressant action, the data strongly suggest that duloxetine is exerting a specific analgesic action over and above its antidepressant effects, both in patients with MDD and also in patients with chronic pain syndromes such as DPNP.

### P111

The influence of anxiety-depression syndrome on the evolution of chronic obstructive pulmonary disease

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Patients with respiratory disease have been reported to have higher than expected rates of depression and anxiety disorders, particularly panic disorders. Dyspnea attack severity is associated with major depression, panic attacks, number of emergency room visits and self-assessment of risk of death. The side effects of antiasthmatic drugs or compulsive overuse of those drugs, in addition diminish psychosocial functioning. We evaluated 30 consecutive subjects with chronic obstructive pulmonary disease (COPD) who attended the Pulmonary Clinic in the beginning and in the end of hospitalization, when respiratory functioning was marked better, with standard psychometric instruments employed: Hamilton scale for depression and anxiety. The levels of anxiety and depression were compared depending on the time of investigation (in the beginning and in the end of hospitalization), as well as with the healthy individuals. The patients with COPD showed significantly higher scores for anxiety and depression at the beginning than in the end of hospitalization, and significantly higher comparing with the control subjects. Such comorbidity probably is a result of a great psychosocial impact of serious chronic disease and the impact of consecutive neurohumoral factors.

### P112

A comparison of the suicidal behavior of adolescent inpatients with borderline personality disorder and major depression

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**Objective:** To examine the hypothesis that some forms of suicidal behavior among adolescents are related to helplessness and depression, while others are related to anger and impulsivity.

**Method:** Sixty-five adolescents were studied. Thirty-three had borderline personality disorder (BPD) of whom 17 had made a recent suicide attempt. Thirty-two had major depressive disorder (MDD) of whom 16 had made a recent suicide attempt. Assessments were made with the Child Suicide Potential Scale, the Beck Depression Inventory, the Beck Hopelessness Scale, the Multidimensional Anger Inventory, the Overt Aggression Scale, Impulsiveness-Control Scale, and the Suicide Intent Scale.

**Results:** Adolescents with BPD had more anger, aggression, and impulsiveness, but similar levels of depression and hopelessness than those with MDD. Suicidal versus non-suicidal adolescents were more depressed, hopeless, and aggressive, but not more angry or impulsive. The suicidal BPD adolescents were significantly more impulsive than the non-suicidal BPD adolescents. In the BPD subjects, impulsiveness and aggression correlated significantly and positively with suicidal behavior. In the MDD subjects, no such correlations were seen. In both diagnostic groups, depression and hopelessness correlated positively and significantly with suicidal behavior. The suicidal MDD subjects had significantly higher suicidal intent scores than the BPD suicidal adolescents.

**Conclusion:** The nature of suicidal behavior in adolescents with BPD differs from that seen in MDD with respect to the role of anger and aggression.

### P113

Neuropsychiatric complications after stroke

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**Background:** Neuropsychiatric sequelae of strokes include emotional, behavioral, and cognitive disorders. They may have a negative effect on the recovery of motor and social functioning, quality of life of stroke survivors.

**Objectives:** The aim of present study was the assessment of prevalence, clinical and MRI correlates of poststroke neuropsychiatric complication.

**Methods:** Since 2004, we prospectively identified and examined 168 stroke patients. Initial stroke severity symptoms were assessed according to the NIHSS. During the acute stage and 3 month later neuropsychiatric symptoms were evaluated with the Hamilton Depression Rating Scale, Hamilton Anxiety Rating Scale, Catastrophic Reaction Scale, Pathological Crying and Laughing Scale.

Risk factors, clinical, demographic and radiological variables were set to multiple linear regression and binary logistic regression analysis to find independent correlates of neuropsychiatric symptoms.

**Results/conclusion:** Depression and anxiety disorder (34.5% and 20.8%) are two of the most common poststroke neuropsychiatric disorders and they did not differ significantly between stroke side, type, size and localization, but comorbidity of the depression/anxiety (10.7%) during the acute stage and 3 month later correlated with anterior fronto-temporal and basal ganglia stroke in the right hemisphere. Catastrophic reactions, pathological affect (7.14%) correlated with subcortical and basal ganglia-ponto-medullary area circuit lesion. Psychosis (1.19%) is a rare and transient complication and related with right frontal lobe and ventricular hemorrhage. Multiple linear regression analysis revealed a significant share of hypertension in the development of depression and anxiety. Deficit severity (measured by NIHSS and Bartel Index) has significant reflect on 3 months poststroke neuropsychiatric symptomatology.

**P114**

Does the type of depression impact the treatment approach?

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**Objective:** To ascertain if selection of the treatment approach depends on the psychopathological type of depression.

**Methods:** A questionnaire of 30 questions about the factors that most often impact choice of antidepressant (AD) treatment and reliance of antidepressants selection according to the peculiarity (adynamic, anxious, anesthetic, melancholic, dysphoric etc.) of the depression psychopathology.

**Results:** One hundred and thirty-three psychiatrists from Lithuanian participated in the study. The study results showed that there is no unanimous opinion among the psychiatrists about the antidepressant selection—wide data scattering was received in the course of the study while rating AD selection according to psychopathological type of depressions, i.e. psychiatrists chose different AD for treatment of specific type of depression. F. e., for treatment of adynamic depression the respondents choose different antidepressants in similar frequency: 7.5%—amitriptyline, 6%—clomipramin, 12%—citalopram, 10.5%—reboxetin, 10.5%—venlafaxin, 4.5%—mirtazapine. There is no clear tendency nor prevailing antidepressant. Meanwhile, even 42.1% of respondents choose amitriptyline for treatment of depression in case of prevalence of intense suicidal thoughts. I.e. practitioners have more unanimous opinion about threatening clinical situation, severity of depression but not about the peculiarity of the depression psychopathology.

**Conclusions:** There is no an unanimous opinion among the psychiatrists, there is a lack of clearly defined criteria of the clinical practice—what antidepressant should be prescribed in what type of depression psychopathology. It is obvious that defined criteria of depression treatment approach would significantly relieve the work of psychiatrists—practitioners.

**P115**

Gender differences of teenagers suicidal behaviour: correlation with depression, personality features

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**Objective:** Lithuania is known as a country where suicides rate is the highest in Europe.

Goal of work is to find out and compare gender differences in teenagers suicidal behavior relations with depression, personality features.

**Methods:** Clinical examination of mental state under the criterions of ICD-10; MMPI method; Hamilton Depression Scale; The questionnaire made by authors to evaluate anamnestic facts and psychosocial factors.

**Results:** Research group consists of 95 teenagers, after the attempted suicide, undergoing a treatment in Kaunas Medical University Children intensive care and Children psychiatry departments: 45 boys and 50 girls, the age 14–17 years old.

Distribution according to age and sex: in the group of 14 agers were 30% girls, 6.7% boys, accordingly in the group of 15 agers—50% and 17.8%, in the group of 16 agers—14% and 62.2%, in the group of 17 agers—6% and 13.3%.

Teenagers indicated reasons for suicide: 46% girls, 42.2% boys—conflicts with family members, accordingly—26% and 26.7%—

conflicts with friends, 4% and 22.2%—conflicts with teachers, legal officers, 24% and 8.9%—other psychological traumas.

Distribution according to diagnosis: 37% girls and 60% boys—Reaction to severe stress, and adjustment disorders (F43), accordingly—16% and 33.3%—Depressive episode (F32), 10% and 6.7%—Schizophrenia, schizoaffective disorder (F20, F25).

**Conclusion:** Teenagers suicidal behavior may depend on the gender and correlate with depression, personality features.

**P116**

A pooled analysis of selective serotonin reuptake inhibitors (SSRIs) and venlafaxine

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**Purpose:** The hypothesis was tested that escitalopram has at least as good efficacy in the acute treatment of major depressive disorder (MDD) as other available antidepressants. In this analysis, studies comparing escitalopram with the following antidepressant compounds: citalopram, fluoxetine, paroxetine, sertraline and venlafaxine XR were used.

**Methods:** 2743 patients in the 10 studies in patients with MDD; 2687 (98.0%) were included in the ITT analysis of the efficacy of escitalopram ( $n = 1345$ ), SSRIs ( $n = 1102$ ) and venlafaxine XR ( $n = 240$ ). The meta-analysis was done by ANCOVA on the primary outcome measure, estimated treatment difference in Montgomery-Åsberg Depression Rating Scale (MADRS) total score at end of study, adjusting for baseline value, centre, and treatment.

**Results:** Pooling data from all currently available studies reveals that escitalopram treatment carries an advantage of 1.07 (95%CI: [0.42; 1.73],  $P < 0.01$ ) MADRS points over other antidepressants, and in response and remission rates. In analysis by medication class, escitalopram was significantly superior to SSRIs, and comparable to venlafaxine. The majority of comparisons were with SSRIs, where the effect was consistently larger than that observed in the comparison versus venlafaxine XR. This advantage was larger in severely depressed patients (baseline MADRS  $\geq 30$ ), with 2.34 (95%CI: [1.22; 3.47],  $P < 0.001$ ) MADRS points over other antidepressant compounds. The withdrawal rate due to adverse events was 6.7% for escitalopram, compared with 9.1% for the comparators ( $P < 0.05$ ). Escitalopram had greater efficacy, as assessed by MADRS and remission and response to treatment.

**Conclusion:** In this meta-analysis, escitalopram showed significant superiority in efficacy compared to the active controls.

**P117**

Escitalopram is a fast-acting antidepressant: results of a meta-analysis

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**Purpose:** In general, antidepressant drugs are regarded as too slow acting: most patients who benefit from treatment require 2 or more weeks of therapy to respond to treatment. An efficacious and well-tolerated antidepressant drug with an earlier onset of effect would be of greater interest to clinicians and patients.

**Methods:** To study onset of effect of escitalopram, a selective serotonin reuptake inhibitor (SSRI), data were pooled from controlled randomised clinical double-blind trials comparing this drug with other antidepressant drugs (SSRIs and venlafaxine XR) in major depressive

disorder, with assessments of the primary efficacy parameter (mean change in the Montgomery-Åsberg Depression Rating Scale [MADRS] total score from baseline, using last observation carried forward).

**Results:** The mean change in MADRS total scores was significantly higher for escitalopram-treated patients than for patients treated with the comparators on Day 7 (−3.9 vs. 3.4, respectively,  $P = 0.029$ ). This difference remained significant and in favour of escitalopram at all subsequent assessments. Using secondary outcomes (Clinical Global Impression of Improvement and Severity scales and early improvement), results consistently showed a statistically significantly faster onset of effect of escitalopram compared with the comparators.

**Conclusion:** By using the MADRS scale and pooling data from the escitalopram clinical trials in MDD comparing escitalopram with other active antidepressant drugs, escitalopram was shown to be a fast-acting antidepressant with a more rapid onset of effect than the comparators, particularly other SSRIs.

## P118

Sexual dysfunctions in psychiatric patients—I

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**Background and aims:** Most of the psychiatric disorders have direct effect on the sexual functioning of the patient. Sexual dysfunctions like loss of libido, orgasmic dysfunction, erectile and ejaculatory problems may manifest as symptom of depression. Again sexual dysfunction can occur as a Comorbid illness in patients with anxiety. Hence, this review article will evaluate the symptoms and comorbidity of sexual dysfunctions in patients suffering from anxiety and depression.

**Method:** An electronic research was made at different databases using key words sexual dysfunctions, psychiatric disorder, anxiety, depression, benzodiazepines, SSRIs, mood stabilizers. Manual search of different books and journals followed. Only those studies were selected which were dealing with psychiatric illness or its treatment and sexual dysfunction. Both male and female dysfunctions were considered.

**Results:** Only 90 studies were selected. Forty-one percent of the patients suffering from depression reported sexual dysfunctions indirectly whereas 06% of the patients reported the symptoms of sexual dysfunctions spontaneously. Eleven percent had erectile dysfunctions as concomitant illness. 30–60% of the patients on antidepressant therapy have sexual dysfunction. Anxiety patients experienced manifold increase in the severity of the sexual dysfunctions.

**Discussion:** Manipulation of neurotransmitters by psychotropic medication induces sexual dysfunctions as their side-effects. Non-compliance with treatment increases the probability of relapse. Statistics also revealed that antidepressant therapy also causes sexual dysfunctions.

**Conclusion:** Psychiatric disorders and sexual dysfunctions reveal a positive correlation. Action of neurotransmitters is crucial in developing the psychiatric disorder and Comorbid sexual dysfunction.

Declaration of interest: Eli Lilly provided researches.

## P119

Changes in clinical features of depressive patients in Japan: a comparison of the inpatients in 1982 and 2002

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**Background and aims:** Statistics from the Japanese Ministry of Health, Labor and Welfare reveal a rapid growth of the number of the patients with depressive disorder in Japan, increasing from approximately 200,000 in 1990s to 444,000 in 2002. The number of suicides is also growing.

Compared to 1982 in which approximately 20,000 suicides had occurred, more than 30,000 people have completed suicides in 1998.

We have suspected that the signs and symptoms of major depression and the medication might have changed over these years.

**Methods:** A-hundred-and-fifty (Group 1982) and 148 (Group 2002) patients were admitted to the psychiatry unit at Teikyo University Hospital in 1982 and 2002, respectively. Twenty-four patients from Group 1982 and 57 patients from Group 2002 who met DSM-IV criteria for major depressive episodes were selected and compared for the following aspects: 1) signs and symptoms, 2) age of onset, 3) hospitalization period, 4) complications, 5) suicide attempt, 6) hereditary pattern, 7) trigger of onset, 8) types of medication, 9) gross titer of medication and 8) with or without electroconvulsive therapy (ECT) enforcement. Changes in disease conditions and medical treatments were statistically compared and were analyzed.

**Results:** Inpatients with major depression were remarkably increasing. The percentage of the patients with the disease increased to 38% from 23%. Lower onset of age and higher rate of the clinical feature of bipolarity were seen in group 2002.

**Conclusion:** There seemed to be occurring significant change in clinical features of depressive illness in Japan.

## P120

Relationship between oral contraceptive use and depressive and anxiety symptoms

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**Object:** The relationship between oral contraceptive pills, depressive and anxiety symptoms has been investigated.

**Method:** Two hundred females referred to Vali-Asr Research center located in Yaft-Abad related to West-Tehran Health Center (in IRAN) have been observed with the aid of a comparative descriptive study. One hundred of them were OCP takers, and one hundred were non takers, considered as a comparison group.

Data analysis has been done according to analytical statistical methods (SPSS software, Mann–Whitney, chi-square).

**Results:** Among the symptoms explored, (i.e. 17 depressive symptoms, 14 anxiety symptoms) From 3 class of symptoms' 63% depressed mood, 30% impaired concentration, 44% genital Symptoms, had significant statistical difference with the comparison group. For other 28 symptoms, No significant difference were observed. The mean for depressive symptoms did not differ among the 2 groups. The mean for anxiety score in the users were higher than the comparison group) ( $7.57 > 6.2$   $P = 0.04$ ). No correlations observed among the depression and anxiety score with the duration of having OCPs.

**Conclusion:** Although some of the anxiety and depressive symptoms were seen in OCP takers generally, most women do not experience the psychiatric side effects of OCPs.

## P121

The study of relationship between oral contraceptives and depressive and anxiety symptoms

L. Koohiabibi, M. Rasoolian. *Psychiatry Institute of Tehran, Iran*

**Object:** The relationship between oral contraceptive pills, depressive and anxiety symptoms has been investigated.

**Method:** Two hundred females referred to Vali-Asr Research center located in Yaft-Abad related to West-Tehran Health Center (in IRAN) have been observed with the aid of a comparative descriptive

study. One hundred of them were OCP takers, and 100 were non takers, considered as a comparison group.

Data analysis has been done according to analytical statistical methods (SPSS software, Mann–Whitney, Chi-square).

**Results:** Among the symptoms explored, (i.e. 17 depressive symptoms, 14 anxiety symptoms) From 3 class of symptoms' 63% depressed mood, 30% impaired concentration, 44% genital Symptoms, had significant statistical difference with the comparison group.

For other 28 symptoms, no significant difference were observed.

The mean for depressive symptoms did not differ among the two groups.

The mean for anxiety score in the users were higher than the comparison group) ( $7.57 > 6.2$   $P = 0.04$ ). No correlations observed among the depression and anxiety score with the duration of having OCPs.

**Conclusion:** Although some of the anxiety and depressive symptoms were seen in OCP takers generally, most women do not experience the psychiatric side effects of OCPs.

## P122

Changes in prefrontal activity as a predictor of response to antidepressive medication in patients with treatment resistant depressive disorder: a pilot study

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**Background:** Previous studies of patients with depressive disorder have shown that changes in prefrontal activity after 1 week on antidepressive medication can predict clinical response. We examined whether decrease in QEEG cordance represents a universal detectable phenomenon associated with response to treatment with different antidepressants and whether the changes can be observed also in patients with treatment resistant depressive disorder.

**Methods:** Seventeen patients with TRD completed the study. EEG data were recorded at baseline and after 1 and 4 weeks on the new treatment (SSRI,  $n = 4$ ; SNRI,  $n = 8$ ; NDRI,  $n = 2$ ; TCA,  $n = 2$ ; NaSSA,  $n = 1$ ). According to previous studies, QEEG cordance was computed at 3 frontal electrodes (Fp1, Fp2 and Fz) in theta frequency band (4–8 Hz). Depressive symptoms were assessed using the MADRS at baseline and after 1 and 4 weeks of the treatment.

**Results:** Five patients are classified as responders after 4 weeks (score reduction in MADRS  $> 50\%$ ). All five responders showed decreases in frontal cordance after the first week of drug administration. We detected significant decrease of frontal EEG cordance ( $P = 0.031$ ) in responders and significant increase ( $P = 0.006$ ) in non-responders after 1 week of treatment. Only two from 12 non-responders showed early frontal cordance decrease.

**Conclusions:** Our results suggest that decrease in frontal cordance may be a universal phenomenon indicating early changes of prefrontal activity in responders to antidepressive medication. QEEG cordance may become a useful tool in the choice of effective antidepressive medication.

**Support:** This study was supported by a grant by MZČR MZ0PCP2005.

## P123

EEG cordance as a predictor of response to antidepressive medication—pooled analysis

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**Background and aims:** Three small-scale studies have shown that decrease of theta prefrontal EEG cordance after 1 week on

antidepressant medication can predict clinical response to treatment (Cook et al., 2002; Cook et al., 2005, Bares et al., 2006). To get information about basic predictive characteristics of prefrontal EEG cordance decrease, we pooled data from all 3 studies.

**Methods:** We used a categorization of decrease to predict response and non-decrease to predict non-response. There was the total number of 54 patients in all studies.

**Results:** In 19 subjects out of 24 responders a decrease of prefrontal cordance was detected. There was no decrease of prefrontal cordance in 23 patients out of 30 non-responder. Computed sensitivity of prefrontal cordance decrease was 0.79 with exact CI95 (0.595–0.908), specificity was 0.767 with exact CI95 (0.591–0.882), positive predictive value was 0.731 with exact CI95 (0.539–0.863) and negative predictive value was 0.821 with exact CI95 (0.644–0.921). The effect size was  $w = 0.57$ .

**Conclusions:** Pooled analysis results support preliminary findings showing that QEEG cordance might be a useful test in early prediction of antidepressive response. It is necessary to re-examine changes in prefrontal cordance in a larger sample of patients.

**Support:** This study was supported by a grant by MZČR MZ0PCP2005.

## P124

Family correlates of depression

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The authors refer on the results of a questionnaire screening among 3172 students of secondary schools in the Czech Republic (average age 15.9 years). Twenty-one percent of the adolescents stated that in the past week they had significant symptoms of depression. The number of depressive girls was 2.6 times higher. 45.3% of the adolescents stated that they contemplated suicide sometime during their lives. 8.8% of girls and % of boys stated attempted suicide.

The respondents perceived conflicts and tension in the family in which they were growing up, as the single most significant stressing family factor. The depressive girls and boys stated that their families were not in order and that there was no atmosphere of trust and understanding. With increasing symptoms of depression there was a decrease in family cohesion. In the boys no statistically important correlation between a complete family and occurrence of depressive symptoms was found. Girls growing up without siblings stated more depressive symptoms. No significant relation was found between the depression of adolescents and the level of education of their parents. The study confirmed relation between assessment of the material status of the family and the occurrence of depressive symptoms.

The results of the study suggest that life in an incomplete family does not always have to be a stressing factor and that vulnerability towards depression is significantly increasing especially in relation to immediate problems in family. The study confirmed significant gender differences.

This work has been supported by grant MZ0PCP2005.

## P125

The demo-trial: a RCT that investigates the antidepressive effect of strength and endurance training in mild to moderate depression

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**Background:** Lately there has been an increased interest on the potential effect of exercise on depression. In 2001 a meta-analysis of randomized controlled trials comparing exercise with other established treatments found that the majority of studies did not have

blinded outcome assessment, nor were they based on the intent-to-treat principle and most had a short follow-up.

On this background we argue that a randomized study based on the intent-to-treat principle, including clinical populations and with a long follow-up is needed to evaluate the efficacy of exercise in light to moderate depressed patients.

**Aim:** To compare the effect of endurance training, strength training to a control group on depressive symptoms.

**Method:** Patients are randomized to one of three interventions: 1) endurance training, 2) strength training and 3) relaxation exercises. The randomization is done as a restricted randomization with the patients being stratified according to medicine status: 1) no antidepressant medicine, 2) have started on medication within the last 6 weeks or 3) have been on medicine for more than 6 weeks. The patients participate in supervised exercise groups twice a week for 4 months. Primary outcome (Hamiltons Rating Scale for Depression) is measured at baseline and 4 and 12 months after.

**Result:** We started including patient in March 2005 and final results will be published in 2008. More than 80 patients have so far been included. Seventy-five percent are women and mean age and BMI is 48 and 26, respectively. Mean HRSD score is 17.1 at baseline.

## P126

Clinical symptoms of major depression are associated with the intensity dependence of auditory evoked ERP components

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**Background and aims:** The intensity (loudness) dependent amplitude change (IDAP) of auditory evoked Event Related Potential (ERP) components correlates with the level of central serotonergic neurotransmission. As a high IDAP has been shown to be associated with a favorable outcome to SSRI treatment it has been suggested as a tool for differential outcome prediction in pharmacotherapy with serotonergic versus noradrenergic antidepressants. The purpose of the present study was to compare the IDAP in unmedicated depressive individuals to healthy control subjects and evaluate clinical characteristics of patients exhibiting high versus low IDAP.

**Methods:** We report the results of a study evaluating the change of auditory evoked P1, N1, P2 as well as P1/N1 and N1/P2 peak to peak amplitudes in 40 in-patients with major depressive episode (DSM IV) prior to antidepressant treatment and 44 healthy control subjects. Clinical symptoms of depression were assessed by means of standardized psychiatric rating scales (CGI, HDRS, HAMA and BDI).

**Results:** We found a significantly lower linear intensity dependent increase of the N1 ERP component in major depression when compared to the control sample. Moreover, our data revealed a positive correlation ( $r = 0.64$ ,  $P < 0.001$ ) of the intensity dependent N1 amplitude slope within the patients' sample with the degree of somatic symptoms of depression: loss of appetite and weight, insomnia, sexual dysfunction.

**Conclusions:** The predominance of certain somatic symptoms in unmedicated depressive subjects exhibiting a high IDAP should be taken into account when deciding whether to treat a patient with a serotonergic versus noradrenergic antidepressant.

## P127

Thyroid hormones and thyroid autoimmunity in female inpatients with treatment-resistant depression

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The presence of antithyroid antibodies defines the autoimmune thyroiditis condition, which may be associated with hypothyroidism.

The aim of the study was to assess thyroid function and putative thyroid autoimmunity in women with treatment-resistant depression.

**Patients:** Thirty women, aged  $46.7 \pm 8$  years diagnosed with depression according to DSM-IV and ICD-10 criteria were studied. Treatment resistance was defined as non-response to two adequate trials of antidepressant treatment with two different antidepressants. Mean severity of depression in the studied group was  $25 \pm 4.8$  points in Hamilton Depression Rating Scale. All patients were menstruating or taking replacement hormone therapy. Patients with presence and/or previous history of thyroid illness and/or treated with drugs which can influence thyroid axis function were excluded.

**Methods:** Serum levels of thyroid-stimulating hormone (TSH), free-thyroxine (fT4) and free-triiodine (fT3) were assessed. Serum concentrations of antithyroid autoantibodies: antithyroid peroxidase (aTPO) and antithyroglobulin (aTG) were analyzed by DYNO antiTPO and anti-TGO assays (BRAHMS; cutoff for positivity  $> 60$  U/ml).

**Results:** TSH, fT4 and fT3 in all patients were within normal limits. Ninety-seven percent of patients showed positive test results for antithyroid antibodies. Twenty-three percent of the group had antithyroid antibodies aTPO and/or aTG above the normal range.

**Conclusions:** Our observation that women with refractory depression have high prevalence of indices of autoimmune thyroiditis suggests that patients with depression resistant to antidepressant treatment may have subclinical dysfunction of thyroid axis due to thyroid autoimmunity. Further studies especially long-term follow-up studies are needed to elucidate possible relationships between treatment-resistant depression and thyroid autoimmunity.

## P128

Remission in catatonia associated with major depression: case report

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**Background and aims:** There are no data from prospective randomized clinical trials, to demonstrate the role of atypical antipsychotics in disorders associated with catatonia.

DSM IV recognizes the association of catatonia with mania and major depression.

The frequency of cases is not high, but the clinical impact is important.

**Methods:** Case Report: 63-year-old patient with repeated hospitalizations for MDD, with three suicide attempts since 2001. One catatonic episode induced by haloperidol IM in 2004.

The current case report is adding information on olanzapine efficacy for a patient with MDD. At hospital admittance the patient was presenting motoric immobility, verbal negativism, refusal of medication and refusal to eat, alternating with agitation episodes.

**Results:** Treatment with olanzapine intramuscular 10 mg leads to complete remission in less than 12 ore. No side effects were registered. No benzodiazepines as concomitant medication. Patient current treatment includes venlafaxine augmented by olanzapine.

**Conclusion:** Unlike classical antipsychotics, olanzapine was active in treating catatonia associated with MDD. Not only catatonia, but also depressive symptoms were adequately controlled with olanzapine.

**P129**

Quetiapine reduces residual depressive and prominent anxiety symptoms in partial responders to selective serotonin reuptake inhibitors (SSRIs) or serotonin norepinephrine reuptake inhibitors (SNRIs) with major depression: an 8-week, double-blind, randomis

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**Objective:** To study the efficacy and tolerability of quetiapine in combination with SSRIs/SNRIs for non-psychotic major depression with residual depressive and prominent anxiety symptoms.

**Methods:** Fifty-eight patients (18–65 years) with residual symptoms following  $\geq 6$  weeks SSRI/SNRI treatment (17-item Hamilton Depression Scale [HAM-D] score  $\geq 18$ ; 14-item Hamilton-Anxiety [HAM-A] score  $\geq 14$ ) were randomised to receive quetiapine (50, 100 then 200 mg/day, 7 days at each dose, to 600 mg/day maximum thereafter) or placebo for 8 weeks. Primary efficacy endpoint: mean change (baseline to Week 8) on HAM-D and HAM-A scales. Secondary endpoints included: CGI-Severity (CGI-S); Global Assessment Scale (GAS); incidence of AEs. Statistical methodology: two sided *t*-test (LOCF).

**Results:** 18/29 quetiapine-treated (mean dose: 202  $\pm$  93 mg/day) and 16/29 placebo-treated patients completed the study. Significant improvements (quetiapine vs. placebo) were seen at Weeks 1 ( $P < 0.01$ ) and 8 ( $P < 0.01$ ) for HAM-D, -6.5, -11.2 vs. -2.9, -5.5; HAM-A, -7.4, -12.5 vs. -3.4, -5.9; CGI-S -0.45, -1.5 vs. -0.07, -0.6; GAS +5.7, +17.5 vs +1.7, +6.6. Significant differences ( $P < 0.05$ ) between groups from baseline to Week 8 were observed in 7/17 HAM-D items and 6/14 HAM-A items. Main reasons for discontinuation were AEs for quetiapine (8 patients) and lack of efficacy for placebo (9 patients). The most common AEs were (quetiapine vs. placebo): sedation/somnolence/lethargy (25 vs. 14 patients); dry mouth (13 vs. 4 patients); weight gain (12 vs. 5 patients).

**Conclusions:** Quetiapine in combination with SSRIs/SNRIs was effective in reducing residual depressive and anxiety symptoms in major depression and tolerability was in line with previous quetiapine studies.

**P130**

Comorbidity of depressive disorders in patients on haemodialysis and in patients suffering from epilepsy

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**Introduction:** The most common psychiatric disorder in epilepsy is interictal depression, with lifetime prevalence of 40–60%.

Depression can develop in patients suffering from various somatic diseases, either because of potential endogenous biological changes or drug-induced symptoms of depression.

**Aim:** The aim of our paper is to determine the presence of depression symptoms in epileptic patients and in patients undergoing haemodialysis.

**Material and methods:** We have prospectively surveyed 60 epileptic patients and 29 patients undergoing haemodialysis. Depressive symptoms were assessed with BDI scale.

**Results:** Symptoms of moderate and severe depression were registered in 33% of patients treated with monotherapy and in 60% of patients treated with multiple therapy ( $t = 2.198$ ,  $P < 0.05$ ), while the depression symptoms were present in half of the patients and in 1/3 of patients undergoing haemodialysis. The criteria of current depressive episode were met by 10% of patients undergoing haemodialysis.

Suicidal ideas were present in 16.7% of epileptic patients and 6.8% patients on haemodialysis.

**Conclusion:** Regardless of the severity of the disease and considerably undesirable disease outcome in patients on haemodialysis, there is more frequent comorbid presence of depressive disorders in epileptic patients who are largely women, receiving multiple therapy and with leading partial complex seizures.

**P131**

Comorbidity of major depression and migraine—a Canadian population based study

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**Objective:** To estimate the prevalence of major depressive episodes (MDEs) in patients with migraine and to compare the strength of association with that of other long-term medical conditions.

**Methods:** This study used a large-scale probability sample (over 130,000 sample) from the Canadian Community Health Survey (CCHS), a cross-sectional survey conducted by Statistics Canada. The CCHS screened for a broad set of medical conditions. Major depression was evaluated with the Composite International Diagnostic Interview Short Form for Major Depression, and the diagnosis of migraine was self-reported. The annual prevalence of major depression was calculated in the general population, in subjects with migraine, and in those with chronic conditions other than migraine.

**Results:** The prevalence of major depression in subjects reporting migraine was higher than that in the general population or in subjects with other chronic medical conditions (17.6%, compared with 7.4% and 7.8%, respectively).

**Conclusions:** There is a strong association between major depression and migraine. The migraine–MDE association may account for a large fraction of the chronic condition–MDE association. The association between migraines and MDE differs from that of other chronic conditions, as the association persists into older age groups.

**P132**

Resolution of sleepiness and fatigue in the treatment of major depressive disorder: a comparison of bupropion and the selective serotonin reuptake inhibitors

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**Background:** To date, it is unclear whether the treatment of MDD with antidepressants which also possess noradrenergic and/or dopaminergic activity can result in a greater resolution of sleepiness and fatigue than the selective serotonin reuptake inhibitors (SSRIs).

**Methods:** Data from all double-blind, randomized clinical trials conducted to date comparing the norepinephrine-dopamine reuptake inhibitor (NDRI) bupropion with an SSRI for the treatment of MDD were pooled. Hypersomnia scores were defined as the sum of scores of HDRS items #22, 23 and 24. Fatigue scores were defined as the score of HDRS item #13.

**Results:** Six double-blind studies involving a total of 662 patients randomized to bupropion, 655 to SSRIs, and 489 to placebo were included in the pooled analysis. There was a greater improvement in hypersomnia scores among bupropion- than SSRI- ( $P < 0.0001$ ) or placebo-treated patients ( $P = 0.0008$ ). There was no statistically significant difference in the degree of improvement of hypersomnia

scores between SSRI- and placebo-treated patients ( $P = 0.8320$ ). Similarly, there was a greater improvement in fatigue scores among bupropion- ( $P < 0.0001$ ) and SSRI- ( $P = 0.0004$ ), than placebo-treated patients as well as a greater improvement in fatigue scores among bupropion—than SSRI—treated patients ( $P = 0.0088$ ). Fewer bupropion-remitters experienced residual hypersomnia (19.9%) than SSRI-remitters (32.0%) ( $P = 0.005$ ), and fewer bupropion-remitters experienced residual fatigue (19.4%) than SSRI-remitters (30.2%) ( $P = 0.0004$ ).

**Conclusion:** Treatment of MDD with bupropion resulted in a greater resolution of sleepiness and fatigue than SSRIs treatment.

### P133

Affective temperaments in nonviolent suicide attempters

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**Background:** While the strong relationship between major depressive episode and suicidal behaviour is well documented, little is known about the predisposing role of affective temperaments (hypothymic, cyclothymic, depressive, anxious and irritable) in suicidal behaviour. The importance of affective temperaments in the development of major mood episodes is supported by clinical and genetic studies showing that there is a continuum between cyclothymia and bipolar I disorder and subthreshold depression and unipolar major depressive disorder (Akiskal, 2002; Judd, 1997).

**Methods:** Using the TEMPS-A autoquestionnaire for assessing affective temperaments (Akiskal et al., 2005) we have investigated the frequency and distribution of dominant affective temperament-types in 150 nonviolent suicide attempters and 717 psychiatrically healthy control subjects.

**Results:** Compared to controls, the rate of dominant affective temperaments was significantly higher among attempters (19% vs. 90%,  $P = 0.0001$ ). Depressive, anxious, irritable and cyclothymic temperaments were significantly overrepresented while hyperthymic temperament was significantly underrepresented in the suicide attempter group.

**Conclusions:** The results suggest that beside major depressive episode, affective temperaments with a predominant depressive component (depressive, cyclothymic, irritable and anxious types) also play an important role in the development of suicidal behaviour.

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### P134

A cost-effectiveness-analysis of different antidepressants based on remission rates

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**Objectives:** We assessed the cost-effectiveness of four different classes of antidepressants (ADs) in the German healthcare setting.

**Methods:** We developed a decision-analytic model simulating treatment pathways of patients suffering from major depression. The

model was based on a previous assessment by Lennox-Smith (UK, 2004) and had been adapted by an expert panel to better reflect German treatment patterns and guidelines. Four initial treatment options were considered for analysis: tricyclic ADs (TCA), selective serotonin reuptake inhibitors (SSRI), selective serotonin noradrenalin reuptake inhibitors (SNRI, Venlafaxine) and alpha2-antagonists (Mirtapazine). Remission, response and side effect rates were derived from pooled clinical trial data and were used to populate the model. Remission was defined as the primary clinical outcome. Cost calculations were performed from the perspective of the statutory health insurance considering only direct costs (e.g. drug, hospital, general practitioner, specialist).

**Results:** Total treatment costs for a period of 24 weeks amount to 3609 EUR, 3954 EUR, 3601 EUR and 3592 EUR for Venlafaxine, SSRI, TCA and Mirtazapine respectively. Costs per patient in remission are: 4673 EUR (Venlafaxine), 5523 EUR (SSRI), 4740 EUR (TCA) and 4717 (Mirtazapine). Sensitivity analyses on both costs and effect size demonstrated the robustness of the model results.

**Conclusions:** Although Venlafaxine has higher acquisition costs than other ADs it appears to be more cost-effective. This finding is in line with a previous evaluation performed from a UK perspective. Following our analysis, remission rates of ADs have a more significant impact on cost-effectiveness than response rates or incidence of side effects.

### P135

Can wholebody cryotherapy become an adjunctive biological method in treatment of depression and anxiety?

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**Background and aims:** Treatment of rheumatism using wholebody cryotherapy (WBCT) has been used since the 1970s. The goal was to assess the efficacy of WBCT as an adjunctive method of treating depressive and anxiety disorders.

**Methods:** Control ( $n = 34$ ) and study group ( $n = 26$ ) (18–65 years) with depressive and anxiety disorders (ICD-10) received standard psychopharmacotherapy. The study group was additionally treated using 15 daily visits to a cryogenic chamber (2–3 min, from  $-160$  to  $-110^{\circ}\text{C}$ ). Hamilton's scales of depression and anxiety were used.

**Results:** After 3 weeks a decrease of at least 50% in the baseline scores of depression was noted in 34.6% of the study group and 2.9% of the control group and of anxiety—46.2% and none, respectively. The reduction of symptoms, particularly somatic and sleep-related complaints, was significantly greater in the study group.

**Conclusions:** Our findings unambiguously indicate the positive role of WBCT in short-term adjuvant treatment of affective and anxiety disorders.

### P136

Tolerability and efficacy of escitalopram as continuation treatment of intravenous citalopram in depressed patients

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**Purpose:** To evaluate the safety and efficacy of treatment with escitalopram (10 or 20 mg/day) for 6 weeks following a switch from intravenous treatment with citalopram (20 or 40 mg/day) in patients presenting with a major depressive episode.

**Methods:** This was an open-label, multicentre semi-naturalistic study in which escitalopram per oral treatment was initiated at half of

the intravenous citalopram dose given at the end of the infusion period. Efficacy was measured at switch, after 3 days, 2 weeks, and 6 weeks, using the MADRS and CGI-I scale.

**Results:** A total of 173 patients were included, 147 (85%) of whom completed the study. The mean MADRS total score at inclusion (last citalopram dose) was  $(31.6 \pm 9.9)$ , and was  $12.7 \pm 9.3$  at the end of the study. Scores on the CGI also improved over the study. At the end of the study, response rates were 67% on the MADRS ( $\geq 50\%$  decrease from baseline MADRS score) and 68% on the CGI-I (defined as CGI-I  $\leq 2$ ). More than half of the patients were in remission (MADRS  $\leq 12$ ). In all, 57 patients (33%) reported at least one adverse event (AE), and seven patients (4%) were withdrawn due to an AE. The most frequently reported AEs were probably linked to residual depressive symptoms (anxiety: 9%; insomnia: 5%).

**Conclusion:** Escitalopram was well tolerated as a continuation treatment after switching from intravenous citalopram. This treatment strategy was effective in reducing depressive symptoms in patients with a moderate to severe major depressive episode.

### P137

Creatine kinase differences in various forms of depression

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**Objectives:** Creatine kinase (CK) is an enzyme found predominantly in the heart, brain, and skeletal muscles. Its substantial elevation usually indicates injury or stress in one or more of these areas.

Serum CK level was largely investigated in schizophrenia and found to be increased in the majority of hospitalized acutely disturbed psychotic patients.

Our previous data showed significant differences in CK level between schizophrenia subtypes in unmedicated patients with “low-normal” levels for the paranoid and “high-normal” for disorganized patients.

In the present study we aim to assess the possible differences in CK in various forms of depression: with and without psychotic symptoms.

**Methods:** All patients were unmedicated: 15 with Major depression (MD), 10 MD with psychotic symptoms, 13 Bipolar Depressed and six Schizoaffective Depressed.

CK was collected in the morning of admission day, prior to any treatment. Exclusion criteria were physical illness including any cerebral or endocrine pathology, alcohol or drug abuse, pregnancy and postpartum depression. Hamilton Rating Scale for Depression was used in order to evaluate the severity of the syndromes.

**Results:** Hamilton score was significant higher in the psychotic depression group, compared with all other groups.

CK serum levels were found in the normal limits but significantly higher in MD than in all other forms of depression, i.e.: depression with psychotic symptoms, bipolar—and schizoaffective—depressed.

### P138

Evaluation of prevalence and severity of premenstrual syndrome in students of Medical University of Zanjan in 2004

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Premenstrual syndrome refers to psychological and physical symptoms that occur some days before the beginning of the menses and ended after beginning of it. Because of the high prevalence of this syndrome

in previous studies and because of disturbance in affected women's daily activities, this study was considered necessary.

In this cross sectional study used a questionnaire designed on the base of DSMIV criteria. Three hundred girl students completed the questionnaires. Also the association of this disorder with age, marital status, economic status and contraception method were studied.

In this study prevalence of premenstrual syndrome was 28% and the maximum prevalence was seen in the following cases: Age above 23 years, obstetrics students, singles, native students, persons who had natural contraception and poor economic status. Of these 28% had mild, 59.5% moderate and 20.5% severe disorder.

In this study prevalence of premenstrual syndrome was 28% that in higher than what was mentioned in reference books. But corresponded with the studies in Iran.

### P139

Prevalence of depression and its contributing factors among Kashan Medical University students

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**History and objectives:** Depression is a debilitating factor in life. Its frequency is estimated to be around 15–20%. Its prevalence among students groups were reported from 10 to 64%. Depression may lead to suicide, drug dependence, low self confidence and may lead to low school performance among students and it will have adverse effect directly and indirectly on the society as a whole. Present study was carried out in order to determine the prevalence of depression among University students in Kashan - 1997.

**Materials and methods:** A descriptive study was carried out on 310 subjects. Individuals were selected on random basis. A short version of Beck standard questionnaire was given to each student. Personal records were collected.

**Results:** From 307 individuals, the prevalence was 35/8%. depression was most prevalent among health and hygiene students (42/3%) and the medical students had the lowest prevalence (28/4%). depression was not related to gender, and residency of students.

**Conclusions:** Due to relative high prevalence of depression among students, prevalence measures ought to be designed in order to reduce stressful situations.

### P140

Cost determination as burden of morbidity in outpatients with depressive disorders in primary health care setting in Spain

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**Objectives:** To measure the economic impact of Depressive Disorders (DD) and associated comorbidity in a population treated in the primary care setting (PCS) under usual clinical practice conditions.

**Methods:** Retrospective cohorts study. Study cohort was formed with outpatients aged over 14 years with an established diagnosis of DD (CIAP; P76) treated in a PC health area during year 2004. Comparative cohort was formed with the rest of outpatients without DD managed in that health area. Main measurements were: age, gender, history/comorbidity and health resource utilization and its corresponding outpatient costs; drugs, diagnostic test, specialized and PC physician visits. Multiple logistic regression analysis and ANCOVA

models were used to compare total and components of costs and comorbidities between cohorts of patients.

**Results:** A total of 64,072 subjects were assessed; 6,592 patients with DD [10.3% (CI: 8.2–12.4%), 74.5% (CI: 73.4–75.6%) women]. DD outpatients showed higher number of episodes of comorbidities/year (mean + S.D.;  $7.4 \pm 4.3$  vs.  $4.7 \pm 3.3$ ,  $P < 0.0001$ ) and all-type medical visits/patient/year ( $12.0 \pm 9.3$  vs.  $7.4 \pm 7.6$ ,  $P < 0.0001$ ). Main comorbidities episodes associated to DD were neurological disorders [Odd ratio (95% CI); 2.1 (CI: 1.5–2.6),  $P < 0.0001$ ], alcoholism [1.6 (CI: 1.3–1.9),  $P < 0.0001$ ] and malignancies [1.3 (CI: 1.1–1.5),  $P < 0.0001$ ]. DD were associated with significant higher adjusted total costs; €1,083.8 (SEM; €8.4) vs. €684.1 (€3.4),  $P < 0.0001$ . Elderly people showed higher costs. Sixty-two percent of total cost was drugs-derived.

**Conclusions:** Prevalence of DD was higher, particularly in women. After adjusting by comorbidities, age and sex, DD outpatients used more health resources and showed higher costs. Costs were associated with age.

### P141

Effect of zinc supplementation on antidepressant therapy in treatment nonresponders

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**Background:** A growing body of evidence implicates a derangement of zinc homeostasis in mood disorders. In general, unipolar depression is connected with low blood zinc levels that are increased by effective antidepressant therapy.

**Methods:** A placebo-controlled, double blind study of zinc supplementation in antidepressant therapy was conducted in 24 unipolar depressed patients nonresponding to at least one adequate pharmacotherapy and fulfilling ICD-10 criteria for moderate or severe depressive episode without psychotic symptoms. Patients received zinc supplementation ( $n = 13$ ; 25 mg of Zn<sup>2+</sup> once daily) or placebo ( $n = 11$ ) and were treated with imipramine (100–200 mg daily). Montgomery Asberg Depression Rating Scale (MADRS) and Clinical Global Impression Scale (CGI) were used to assess efficacy of antidepressant therapy, and patients' status was evaluated before the treatment and 2, 6 and 12 weeks after its commencement. Therapeutic response was defined as at least 50% reduction in MADRS scores plus "much" or "very much improved" in CGI scale.

**Results:** Zinc supplementation significantly reduced scores in both measures after 6- and 12-week supplementation when compared with placebo treatment. Moreover there percentage of patients who fulfilled response criteria at the end of the study was significantly bigger in zinc treated group (27.3% vs. 69.2%).

**Conclusions:** This study is the first demonstration of the benefit of zinc supplementation in patients non-responding to antidepressant therapy. The mechanism(s) may be related to modulation of glutamatergic or immune systems by zinc ion.

### P142

"Doing well"—outcome of stepped, integrated depression care in the national health service in Scotland, UK

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Depression is a major public health problem in Scotland, affecting about 17% of adults. Antidepressant prescriptions almost trebled in the

decade to 2003, despite no significant change in the incidence of depression. Since July 2004 "Doing Well" has provided an innovative form of "stepped, integrated care" for people with depression.

**Objectives:** To enable people to assess their own level of depression • To offer guided self-help to all participants • To rationalise the use of antidepressants for people with mild depression • To promote the effective use of antidepressants prescribed for moderate/severe depression.

**Methods:** All patients assess their depression using the "Personal Health Questionnaire" (PHQ) • Shared information between clinicians in primary and secondary care, using integrated electronic referral systems and a comprehensive clinical database. • No "severity threshold" for access to specialist support. • Evidence-based provision of pharmacological, psychological and self-help interventions, guided by depression severity • Response to treatment monitored for all patients; care "stepped up" for non-responders.

**Results:** Average drop in PHQ score (to 4.4 overall) indicates recovery for both mild and moderate/severe depression • Capacity to see ~1200 patients a year with only 6 full-time clinical staff (mean treatment time = 136 mins over 4.4 clinical contacts) • Reduction of antidepressant use to 20% in mild depression • Formulary compliance doubled to 86% • High service user satisfaction ratings

**Conclusions:** "Doing Well" can deliver effective depression care with minimal resources. Antidepressant use is significantly rationalised, and service users describe high satisfaction ratings.

### P143

The influence of 5-HTTLPR and STin2 polymorphisms in the serotonin transporter gene on the occurrence of adverse events during treatment with selective serotonin reuptake inhibitors

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**Background:** During treatment with selective serotonin reuptake inhibitors (SSRIs) for depression, some patients experience adverse events whereas others do not. Assessment of these predictors would be useful to identify patients likely to develop adverse events. This study evaluates the association between adverse events during SSRI treatment and two polymorphisms (5-HTTLPR and STin2) in the serotonin transporter gene which have also been suggested as predictors for SSRI treatment outcome.

**Methods:** We included 214 patients meeting DSM-IV criteria for depression and using a SSRI for at least 6 weeks. Blood samples or buccal swabs were taken from all participants to determine 5-HTTLPR and STin2 genotypes. Additional information was gathered through interviews and general practitioners' files. The association between genotype and presence of adverse events was assessed by use of logistic regression.

**Results:** Patients with the 5-HTTLPR s-allele appeared to have an increased risk on developing adverse events. This association was strongest for general adverse events (dermatologic reactions, weight gain, weight loss and fatigue); Odds Ratio (OR) 2.10 (95%-CI 1.07–4.10). for STin2, results were inconsistent and observed associations were small and statistically non-significant.

**Conclusion:** Our findings indicate that patients with the 5-HTTLPR s/s or s/l genotype have an increased risk on developing adverse events, especially general adverse events, during SSRI

treatment. for STin2 genotype, no clear relation with occurrence of adverse events seems to exist. However, at this moment, available evidence is too limited to use genetic testing for the identification of patients at risk for adverse events during SSRI treatment.

### P144

A relationship between contraception method and depression

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**Objective:** One of the major needs of present time is birth control. Methods of contraception are numerous with various effectiveness. Each method has its own advantages and disadvantages. One of these side-effects is depression. Considering that depression is rampant among the women and it has irreparable damage on wellbeing and welfare of the mother, the child, the family and considering the controversial reports on relationship between methods of contraception and depression, this study was performed on woman referring to kashan university primary health care centers in Iran in 2003.

**Design and methods:** This descriptive-analytical study was performed on 456 married women who referring to kashan university primary health care centers in Iran in 2003. They used various contraception methods. To measure depression, questionnaire of standard BECK test have been used. In addition to the mentioned test, manual questionnaire consisting of demographic background, history of depression, duration of using contraception and having stress for last months were completed and used. Data were analysed by statistical method of  $\chi^2$ .

**Results:** This study showed that 57% of women who used combined contraception pills were depressed, those using progesterone were 66% and nonhormonal user were 33%. Furthermore there was statistical relationship between method of contraception and depression ( $P < 0.001$ ). In our cases significant statistical relationship between methods of contraception, age, duration of usage of contraception, positive family history of depression, have an stress during 6 months ago and number of children with depression were seen.

**Conclusion:** Considering statistical relationship between method of contraception and depression, it is important to take more precaution in selecting the contraception method and they necessity be replaced by safer method.

### P145

Management of comorbid depression in older people

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Depression in the elderly is under-recognized and under-treated because the presentation of depression in old age may be less obvious than in younger people. Depressive mood is less frequently a core complaint in older people but somatic or hypochondriacally symptoms for which insufficient physical cause is found are seen much more frequently than in depression earlier in life.

It can also be difficult to differentiate depression from coexisting anxiety and cognitive disorders. We had examined 35 patients over 65 years old, diagnosed with depression and found that subjective measures of physical health were much more strongly associated with depression than objective measures of illness. Depressive cognitions such as

pessimism about the future, derogatory thoughts about the self and self-blame are often prominent, though it has also been suggested that low self-esteem is relatively unusual in older people with depression. Depression was also presented in a few cases with deterioration in cognitive functioning. Depressive pseudodementia may nonetheless carry a poor long-term prognosis, with high risk of later development of irreversible dementia. Though drug treatment is often the option of first choice in older depressed patients, the use of psychological approaches must also be considered. Management must be holistic and consider modification of predisposing, precipitating and perpetuating factors. Crucial elements will include appropriate management of the coexistent physical problem(s) as well as social interventions to reduce disability and isolation.

### P146

Bupropion extended release and venlafaxine extended release for the treatment of depression: results from three multicenter trials

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**Objective:** To assess the efficacy of bupropion extended-release (BupXL) and venlafaxine extended-release (VenXR) in patients with MDD.

**Methods:** Three multicenter depression studies were conducted. Studies 1 (WXL101497) and 2 (AK130939) were multi-national, predominantly European, and assessed the antidepressant efficacy and tolerability of BupXL (150–300 mg/day), VenXR (75–150 mg/day) and placebo over 8 weeks. Study 3(WXL100368), conducted in US, directly compared the effect of BupXL (150–450 mg/day) and VenXR (75–225 mg/day) on sexual dysfunction (primary) and depression over a 12 week period.

**Results:** 1501 outpatients were randomized and received treatment ( $n = 571$ ,  $n = 588$ ,  $n = 342$ , Studies 1–3, respectively). In Study 1 both BupXL and VenXR separated from placebo on the primary efficacy parameter: mean change from baseline in MADRS. In Study 2 both treatments were numerically superior to placebo, but statistical differentiation from placebo was only noted with VenXR. For Study 3, VenXR was associated with more sexual dysfunction (primary parameter, CSFQ) and the antidepressant efficacy was similar between BupXL and VenXR, although BupXL was statistically superior on the remission analysis ( $\text{HAMD} \leq 7$ ). Both treatments were well tolerated in all three studies. Withdrawals due to adverse-events ranged from 5 to 6% for placebo, 4–5% for BupXL and 4–8% for VenXR in the two placebo-controlled studies. In Study 3, 6% of BupXL patients withdrew due to adverse-events compared with 11% for VenXR. In all 3 studies, VenXR patients reported more adverse events than BupXL patients during taper and follow-up periods.

**Conclusion:** BupXL and VenXR are both efficacious antidepressants. VenXR was associated with higher rates of sexual dysfunction compared to bupropion.

### P147

An empirical approach to temperaments and personalities in relation to mood disorders in Japan and consideration of its cultural, historical aspects

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This presentation is aimed at (1) investigating the construct validity of the temperaments and personalities which phenomenological psychopathologies have described, (2) comparing the temperament and personality features between patients with mood disorders and normal controls, and (3) discussing the cultural and historical aspects of the personalities related to mood disorders in clinical practice in Japan.

**Methods:** We used two questionnaires, the TEMPS-A formulated by Akiskal and the Munich Personality Test formulated by Zerssen, and surveyed non-clinical and clinical samples.

**Results:** A factor analysis based on the survey on the non-clinical populations revealed six factors; factor 1, cyclothymic tendency; factor 2, hyperthymic temperament trait; factor 3, irritable temperaments; factor 4, melancholic type characterized by perfectionistic donation to social achievements; factor 5, interpersonally sensitive and passive traits; and factor 6, schizoid temperament. Significant differences were found in factor 1, 3 and 5 between the clinical samples (major depressive and bipolar disorders) and the controls.

**Discussion:** This result and the recent investigations in Japan suggest that the stage on which the psychologies of the patients with mood disorders are enacted may be gradually shifting from the super-ego level (e.g. the domain of social norm and responsibility in line with Shimoda, Tellenbach and Kraus) to the ego and id level (e.g. the domain of self-realization, interpersonal relations, and the regulation of emotional impulses) under the influence of the cultural changes over the past 30 years.

## P148

Spinal cord stimulation in the management of chronic pain: the role of psychological assessment

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**Objective:** Neuropathic pain is a prevalent disease which can have major consequences on health care resources and the individual. Neurostimulation is often used as a late modality. Pain assessment can be complex, considering somatic and psychological factors. A multidimensional approach needs a multidisciplinary team from assessment in the selection to treatment outcome.

**Methods:** Forty-five consecutive referrals for spinal cord stimulation implantation were examined during 4 years. Chronic low back pain was the most common pain complaint. Physical examination was completed by a psychological assessment based on an interview by a psychiatrist and separately by a psychologist. Two psychometric pain scales were used. A flexible approach customized to each patient's needs was performed until and after implantation.

**Results:** Among the 45 patients, most of them were depressed: depression and anxiety not only emerge as a consequence of pain but also can exacerbate and maintain it. Personality disorders may be predisposing and reinforcing. Only two patients were contraindicated due to severe disorders with risk of suicide. Thirty percent of the patients needed psychological help to become eligible for implantable pain therapy. Fifty percent were much improved and 60% improved their quality of life, and could work again.

**Conclusion:** Few studies show that psychological factors may predict chronic pain and affect the treatment process. Interdisciplinary pain approach may reduce such risk factors, help patients to develop a different concept about chronic pain and its treatment, and therefore to become suitable candidates for it. This would directly improve the treatment's results preserving daily life activities.

## P149

The influence of climatic conditions upon the course of depressions and depressive disorders in health-resort areas

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For the first time this work provides a clinical and clinicocatomnetical comparative analysis of the course of depressions and depressive sufferings during the temporary migration to a health resort. The symptoms of a migration stress are revealed, as well as the dynamics of the course of the illness after the temporary migration stress and the dependence of the clinical picture of depressions upon the climatic conditions, the social and psychological environment. The inclusion of the results of these analysis permits to put up a question about the treatment of patients predisposed to endogenic psychoses in sanatoria and health resorts. Due to this work, the prohibition to attend health resorts by mentally ill people, which existed in the previous years, has now been cancelled and such a category of patients has equal rights to take courses of treatment as well as other people. Thus, the limitation, which made such people feel their inferiority and suffer is proved to be groundless.

## P150

Onset of effect for escitalopram: a meta-analysis of randomised controlled clinical trials

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**Purpose:** To analyze the significance of onset of effect for the eventual outcome and the contribution of individual Montgomery-Åsberg Depression Rating Scale (MADRS) items to improvement in the MADRS total score.

**Methods:** All five published placebo-controlled clinical studies in depression as per January 1, 2005, with escitalopram, were included in this pooled analysis. The pre-defined primary measure of efficacy was the change from baseline to final assessment (Week 2 in 1 study) of the MADRS total score. Onset of effect was defined as  $\geq 20\%$  reduction of the baseline efficacy score.

**Results:** of the 1621 patients who were randomised to either escitalopram (871) or placebo (750), 1333 completed 8 weeks of treatment (707 escitalopram and 626 placebo). A statistically significant difference ( $P < 0.05$ ) between the MADRS total score responses of escitalopram and placebo treatments was observed at Week 1. All ten MADRS single items showed a significant treatment effect at Week 8. For items representing core symptoms of depression (1, 2, 3, 6, 9, 10) the effect was detected early (Week 1) and for other items (4, 5, 7) the effect was detected later (Week 6–8). Of the patients who showed an onset of effect after two weeks and who remained on escitalopram until Week 8, 63% were in remission at Week 8 (mean MADRS score of 6.1).

**Conclusions:** Onset of treatment response at 2 weeks is an important indicator of subsequent remission at 8 weeks. If patients fail to show a measurable clinical improvement within 2 weeks, a dose increase should be considered at this time.

## P151

Effective dose of escitalopram major depressive disorder

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**Purpose:** Data from the three placebo-controlled, fixed-dose trials of escitalopram (10 or 20 mg daily) in the acute therapy of DSM-IV major

depressive disorder (MDD) were combined to investigate the relationship between escitalopram dose and severity of depression. The hypothesis was that escitalopram 10 mg daily might be an effective dose in moderate MDD and escitalopram 20 mg daily in severe MDD.

**Methods:** The Montgomery-Åsberg Depression Rating 10-item Scale (MADRS10) and the 6-item MADRS subscale were used as outcome measures when testing this hypothesis. Assessments of depression severity with the rating scales were made at baseline and after 1, 2, 4, 6, and 8 weeks of therapy. All analyses were done by ANCOVA using the last-observation-carried-forward approach, and adjusting for baseline value, study, and centre.

**Results:** After 8 weeks of therapy, 10 mg escitalopram was superior to placebo, with a standardised effect size  $> 0.40$  for patients with moderate depression (baseline MADRS10 score from 22 to 29), but not for those with severe depression (baseline MADRS10 score  $>29$ ). In contrast, 20 mg escitalopram was superior to placebo, with a standardised effect size  $>0.40$  in severe depression, but not in moderate depression. The MADRS6 showed response (standardised effect sizes  $>0.40$ ) for moderate depression after 2 weeks of treatment with 10mg escitalopram and in severely depressed patients after 4 weeks with 20 mg.

**Conclusion:** Escitalopram 10 mg daily was the optimal dose for the treatment of moderate DSM-IV MDD, while escitalopram 20 mg daily was an effective dose in patients with moderate to severe depression.

## P152

Depressive disorders and compliance among patients with diabetes mellitus type 2

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**Aim:** High prevalence of depression (15–40%) and insufficient compliance with medical recommendations (7–40%) are observed among patients with diabetes type 2. The main aim of the study was to determine the correlation between depression and the intensity of accomplishing medical recommendations.

**Method:** The study comprised 94 subjects (51 females and 43 males) under 60 with diagnosed diabetes type 2 without serious accompanying ailments. Patients have been treated in diabetic outpatient clinic for at least 12 month. Beck Depression Inventory was utilized alongside an originally developed questionnaire used to examine health behavior (Health Behaviors Questionnaire) as recommended for this group of patients, and objective health indices (BMI, HbA1c, blood pressure) allowing to assess the patient's compliance.

**Results:** The obtained results confirm the assumption that depression was associated with health behaviors in patients with diabetes type 2:

The intensity of health behaviors was lowering with increasing depression ( $r = 0.62$ ;  $P < 0.001$ ) and worse parameters of glycemia.

High level of depression induced rare healthy behaviors normalizing glycemia as well as rare general health behaviors ( $P < 0.05$ ).

The intensity of behaviors normalizing glycemia was related to the lower level of motivational sphere disorders ( $r = -0.58$ ;  $P < 0.001$ ) and the lower level of depressive somatic symptoms ( $r = 0.56$ ;  $P < 0.001$ ).

**Conclusions:** The results of the study indicate that two depression dimensions determined the intensity of accomplishing medical recommendations: motivation and somatic symptoms. It seems needful to include cognitive therapy of motivation to the treatment program for patients with diabetes type 2.

## P153

Behavioural and cognitive therapy in complex treatment for depressions

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**Background:** The purpose of the current study was to investigate dynamics of depressive disorders due to combination of drug therapy and psychotherapy.

**Methods:** Biochemical, clinical therapeutic, clinical psychopathological methods as well as Hamilton's anxiety and depression scale were used. Female patients were studied. They had a depression pattern according to ICD-10 criteria for recurrent depressive disorder. The treatment program included behavioural and cognitive psychotherapies. The control group received only routine drug therapy.

**Results:** All the patients had melancholic signs of depression. In 72% of patients, depressions were accompanied by anxiety. It was revealed that changes in total lipids in the blood serum, lipoproteins of low density, triglycerides, cholesterol and its fractions in lipoproteins of low and high density mostly correlated with clinical evidence of depressions, these biochemical criteria of lipid metabolism were recommended to evaluate courses of depressive disorders. Eighty-eight percent of patients showed positive dynamics in treatment for depressions. Use of behavioural and cognitive therapies allowed to use drug therapy more effectively and to improve remissions. Twenty-one percent of patients demonstrated complete improvement of depressions. Seventy-nine percent of patients showed partial remissions. This correlated with the tendency to normalization of biochemical parameters of lipid metabolism in the blood serum and oxidant-antioxidant system of the organism.

**Conclusion:** Investigation of biochemical criteria of lipid metabolism in combination with analysis of clinical and psychopathological peculiarities of depressive syndrome is recommended to control of treatment efficacy and prediction in case of complex cognitive behavioural therapy for depressions.

## P154

Actual emergencies in psychiatry: from everyday problems to crisis

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**Objective:** This presentation aims to address difficulties in the daily practice of psychiatry. These difficulties arise from theoretical distance among practitioners, particularly the concept between biologic psychiatry and the other theoretical corpus of psychiatry, from differences which exist between the results of randomised studies and the reality of the clinical practice.

Besides, urgent action is required to relieve the burden of mood disorders and provide adequate resources to meet present and future needs.

**Methods:** Each author contributed on presenting one subject who has expertise and also a clinical experience to evidence difficulties. We will primarily: the correct approach and treatment for bipolar spectrum disorders; the theoretical, epidemiological and treatment difficulties for the ADHD; the problems of compliance and the secondary sexual effects of medications; new different ways to psycho-social

rehabilitation (football and journalism); the European Depression Day event, designed to make everyone more aware of the importance of prevention, early diagnosis and optimal treatment.

**Results:** The revealing of these difficulties, without dogmatic positions, must allow, discussions in the symposium, to evidence missing links between these gaps.

**Conclusion:** We conclude that the most broaden attitudes, as we have with our patients, will allow to enrich psychiatry rather than to engage in dogmatic positions. Only together we can overcome the burden of mood disorders.

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## Poster session 2: Diagnoses and classification

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### P155

Neurotic disorders of Ukraine armed forces service recruits for a fixed period and modern psychotherapeutic treatment strategies

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Reasons of development and special features of neurotic disorders of Ukraine's Armed Forces servicemen for a fixed period of time under present conditions have been revealed with the aim of clinical, psychopathologic, experimental psychological methods of research and a comprehensive system of their therapy and prophylaxis has been developed. A growth of the present pathology among soldiers from 61.7% in 1994 up to 77.2% in 2000 has been revealed. Clinically outlined forms of neurotic disorders have been diagnosed at 32 ones (29.9%), neurotic reactions at 70 ones (65.4%), and at 5 ones (4.7%)—preneurotic reactions.

According to the results of the treatment and analysis of dynamics symptoms medium values in the process of therapy there have been revealed differences in the researched groups, effectiveness of person-developing, non-directive methods of psychotherapy have been shown. The special feature of a psychotherapeutic approach consisted in usage of technologies of NLP, Ericson's hypnosis. With the aim to advance revealing neurotic disorders of soldiers and to increase the treatment-and-prophylactic effectiveness of actions there have been determined conditional criteria: "norms-prediseases-diseases". The possibility of an early express- diagnostics of the neurotic disorder appears, which allows to apply in practice a prophylactic principle of medicine, and with due regard for military service specific character to prevent discharge and emergencies in forces. Key words: neurotic disorders, serviceman of Ukraine's armed forces service for a fixed period, psychotherapy, person-oriented, psychoprophylaxis.

### P156

Prevalence of subthreshold forms of child psychiatric disorders in Hungary

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**Aims:** The aim of this study was to examine the prevalence of subthreshold child psychiatric disorders among hospitalized children.

**Method:** Using a structured interview - Mini International Neuropsychiatric Interview Kid (M.I.N.I. Kid)—we examined 112 consecutively admitted children aged under 18 in the Vadaskert Child Psychiatric Hospital, Budapest, Hungary. Six children were diagnosed as having pervasive developmental disorder by an expert clinician, their data were excluded. We report the data of 106 children.

**Results:** Ninety-two percent ( $n = 98$ ) of the children received subthreshold diagnoses by the M.I.N.I. Kid, 77% ( $n = 82$ ) of them

received at least two comorbid subthreshold diagnoses and 68% ( $n = 56$ ) of them had three or more current diagnoses. The interview gave on average 3 subthreshold diagnoses for one child (S.D. = 2.06). There were seven children, whom the M.I.N.I. Kid did not give any threshold diagnoses, though these children were hospitalized. Six out of the seven children had at least one subthreshold disorder according to the M.I.N.I. Kid.

**Conclusions:** Our study calls the attention on the importance of subthreshold disorders among hospitalized children. It is of importance that some children did not have any threshold psychiatric disorder according to the M.I.N.I. Kid, but they had at least one subthreshold disorder. This finding may explain, while children did not fulfill any DSM-IV threshold disorders, but they had to be hospitalized for problems in the family/kindergarten/school. Recognizing subthreshold pediatric psychiatric disorders, either as a comorbid disorder next to the threshold disorder(s) or just alone, can help in better understanding of these children and can improve treatment.

### P157

Hysterical psychoses: descriptive study

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**Background and aims:** Hysterical psychosis (HP) has disappeared from standardized diagnostic systems, just ICD-10 criteria include this condition as a non-specific category.

The aim was to study cases diagnosed as HP (F.44.9) and to compare sociodemographic and clinical features with other acute psychoses (AP).

**Methods:** Retrospective study that includes all the patients who had been admitted to the psychiatric inpatient unit in a tertiary hospital from January 1st, 1997 to April 30th, 2005. 167 cases were selected and reviewed data collected from their psychiatric records.

Contingency tables and Student's *t*-tests were calculated for proportions and means comparisons, respectively.

**Results:** Of a total of 3128 admissions during the study period, 167 (5.3%) fitted the diagnosis group of AP. Of these 167 patients, 64 (38.3%) were recorded as HP (F44.9). Diagnosis of HP, compared to others AP, predominates in women (92.4%). There was no statistical difference related to age and long of stay data. Patients diagnosed as HP received lower antipsychotic and higher benzodiazepine equivalent doses ( $P < 0.001$ ). In HP was more frequent conditions of fluctuation clouded consciousness and temporal and spatial disorientation.

**Conclusions:** Hysterical psychoses represent 2% of total admissions during studied period of time. Further than the suitability of the term, phenomenologic differences among HP and others AP are observed, and lead, in the clinical practice, to different therapeutic orders.

### P158

Some aspects of treatment and rehabilitation of patients with non-psychotic disturbances due to brain damage

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**Background and aims:** To find out factors promoting to the typological formation of non-psychotic disturbances among brain damaged patients. The assessment of the role of predominant syndrome in the pathokinesis of these disturbances greatly facilitate

not only their opportune diagnosis, but help out to select most rational methods of treatment and rehabilitation of appropriate patients.

**Methods:** One hundred and twenty-four patients with different non-psychotic disturbances after brain damage have been examined during 1993–2003. The patients were investigated by dynamic clinical–psychopathological method.

**Results:** The phenomenological and statistical analysis of the neurotic syndromes due to brain damage in dynamics showed, that the genetic, constitutional and psychogenic factors were of great importance in their typological formation. The genetic propensity to mental disorders and accentuations of personality promote to the development of phobic-hypochondriacal disturbances, and the psychogenic factors—to the development of personality changes. So it is important from the early stages after brain damage parallel with the pharmacological treatment carry out psychotherapeutic as well as social-psychological and rehabilitation programs to prevent the pathological development of personality. The psychotherapeutic and rehabilitation measures were more effective when using team method, where psychiatrist, neurologist, physician, psychologist and social worker take part. Our experience showed that it is preferable, when psychiatrist coordinates the team work.

**Conclusions:** The use of the mentioned methods greatly promote to the shortening of the period of treatment and real rehabilitation, as well, the best confirmation of which is the decrease of relapses and propitious course of the disorder, revealed during dynamic observation of patients.

## P159

Behavioral patterns and psychosocial adjustment after laryngeal cancer surgery

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**Introduction:** Research suggested that successful adaptation to laryngeal cancer and its psychological sequelae is affected by personality. Evaluation of quality of life in head and neck cancer is especially important since quality of life studies based on real data coming from patients can give us a better idea and understanding of what patients consider to be their problems and priorities after treatment.

**Purpose:** The purpose of this study is to investigate the behavior pattern differences in psychosocial adjustment among laryngeal cancer patients who have undergone laryngectomy.

**Material and method:** We studied 60 patients 39 men, 24 women mean age (58.9) S.D. ± 5.2. Assessment was carried out two years after surgery. Patients completed a) The psychosocial adjustment to illness scale Self-Report Questionnaire (PAIS-SR), b) Bortner and Rosenman Behavior Profile, c) Eysenk Personality Questionnaire (EPQ).

**Results:** Significant differences ( $P < 0.005$ ) were found between type A and type B behavior pattern patients in several dimensions of the PAIS-SR. It was also found that the dimensions (N,E) of (EPQ) significantly predicted psychosocial adjustment.

**Conclusions:** We conclude that patient perspectives should be considered and consulted to evaluate patient's view about treatment outcomes. Possible explanations, recommendations for further research and clinical intervention are suggested.

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## P160

Withdrawing lifestyle among young adults in Japan

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In Japan, there are over a million young adults who refuse to work and who avoid social contact. Since the 1990s', this phenomenon, known as "hikikomori" (social withdrawal), has become a serious psychosocial problem in adolescence and young adulthood. In this phenomenon, young adults who have either graduated from high school or university, or have dropped out altogether, do not take up employment but rather cut off contact with society and confine their lives mainly to the family home. Hikikomori, however, is not the name of a disease but rather a term to indicate a condition involving problem behaviors. Therefore, the category includes individuals suffering from a variety of severe mental disorders including schizophrenia, affective disorder, taijin-kyofu-sho, obsessive-compulsive disorder, personality disorders, developmental disorders and so on. We define "primary hikikomori" as one manifestation of the hikikomori phenomenon which cannot be described using current concepts in psychiatric disease.

In our presentation we outline the psychopathology of this condition and clarify the criteria for making a differential diagnosis between primary hikikomori and other secondary forms of the phenomenon. We also consider possible contributing factors such as Japanese culture, economic conditions, family relationships and psychosocial tendencies among young adults in Japan.

## P161

The impact of legislation in the process of diagnosis and psychiatric therapy

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The purpose of this retrospective study is to underline the impact of changing the laws regarding the rights of psychiatric patients in Romania, during the transition process. The study was made in Psychiatric Clinic II Tg. Mures, Romania and the period taken into consideration was 1997–2005.

**Material and method:** All records of patients admitted in Psychiatric Clinic II were examined in the view of the diagnosis and treatment. for the same period we studied the changes in legislation concerning the right to free psychiatric treatment.

**Results:** We found a strong correlation between the moment the legislation changed and the percentage of patients with a specific diagnosis. The percentage of patients with Anxiety disorders decrease at half in year 2000 associated with doubled percentage of patients with Affective disorders. These changes appeared only when the patients with diagnosis "Affective disorders" had the right to free treatment with antidepressants—the price of new antidepressants being out of reach for the majority of Romanian people. In 2003, when the legislation was changed again we remarked the slowly return to initial values.

**Conclusions:** These correlations underline the impact of legislation in the process of diagnosis and psychiatric treatment.

**P162**

Prevalence of ADHD in cocaine dependence patients

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**Background and aims:** ADHD is a risk factor for later SUD. Biederman et al. (1995) found that 52% of ADHD patients presented a SUD across their life span, while in controls, this percentage decreased to 27%. On the other hand, Schubiner (2005) remarked that 20–30% of adults presenting a SUD have concomitantly ADHD and approximately 20–40% of adults with ADHD have histories of SUD.

We carry out a preliminary investigation in a sample of 25 inpatients with DSM-IV-RT diagnostic criteria for cocaine dependence with no other SUD, who joined a pharmacological-placebo-controlled clinical trial.

**Methods:** Fifteen inpatients were rated retrospectively for ADHD diagnoses, using the WURS, the ADHD Symptom Checklist, the ADHD Rating Scale and the CAADID. Addiction severity was measured using the ASI. The presence of DSM-IV-TR Axis I and Axis II disorders was assessed using the SCID-I and SCID-II.

**Results:** The participants had a mean age of 32 years (DT = 7.5), of which 28 were men (62.86%) and 7 were women (20%).

The mean age of initiation of regular cocaine use was 19.35 years (DT = 5.6). The primary route of administration was intranasal (88%), and in most cases (84%) cocaine was used on a daily basis, with a mean consumption of 1 g/day.

Sixteen percent of the inpatients interviewed ( $N = 4$ ) presented an adult ADHD: three combined and one inattentive type of ADHD.

**Conclusions:** Our preliminary results show a relevant prevalence of ADHD among the sample studied, and similar to the findings of other studies reviewed.

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## Poster session 2: Epidemiology

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**P163**

Incidence rates of psychotic disorders change among the young. Evidence from Zurich 1977–2003

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**Background:** Most epidemiological studies have described a decline of incidence or first admission rates in schizophrenia until the 1990s. However, the results have not been consistent. We investigated the incidence of first admission patients with an ICD-8/9/10 diagnosis of psychotic disorders in the Canton Zurich / Switzerland, 1977–2003.

**Method:** The data was derived from the central psychiatric case register of the Canton of Zurich. We used two different statistical models to assess departures from existing trends. Firstly, we used ex-post forecasting with ARIMA models. Secondly, we applied age-period-cohort analysis to determine hidden birth cohort effects.

**Results:** In recent decades, first admission rates of patients with psychotic disorders have been stable in men and have decreased in women. However, the rates of the youngest age groups show a strong increase in the second half of the 1990's. This increase is distinctly stronger in men than in women.

**Conclusions:** The trend of incidence rates in patients with psychosis has recently reversed among the youngest age groups in

Zurich. Among the known risk factors, drug use is the only one which might generate fast changing incidences of psychotic disorders on the population level. The trend reversal in Zurich coincides with the increased use of cannabis and other illicit drugs in young Swiss in the 1990's. Moreover, the sex-ratio in incidence rates coincides with the sex-specific patterns of drug use.

**P164**

The detection and prevalence of psychopathologic morbidity: a epidemiologic study in primary care

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The objective is to study the prevalence of psychopathologic morbidity in Primary Care and the detection of psychiatric disorders and the factors that affect it, through a cross study and description of the target population (432 patients > age 18) in a group of patients from SAS Health Center in Córdoba.

We were administered to the patients the GHQ-28 screening scale and a survey of sociodemographic and health variables.

The prevalence of psychopathologic disorders found was 28.70% and it was associated to the female people, to be old year, to live alone, to have a few education and to suffer a big number of illness.

**P165**

Analysis of the suicide attempts attended in a general hospital during 6 months

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**Objective:** To study the characteristics of the suicide attempts attended in ER in Clinical Hospital San Cecilio of Granada during a period of 6 months, and social-demographic and clinics variables of the patients.

**Method:** The information was analyzed in the medical histories retrospectively of 160 suicide attempts attended in our hospital in the first semester of 2003. The following variables were collected: sex, age, psychiatric antecedents, previous suicide attempts, personality disorders history, admission variables, utilized method and, in case of drug intoxication, employed drug. The data were analyzed by the statistical package SPSS 11.0 and the  $\chi^2$  test was employed for the qualitative variables.

**Results:** Sixty-three percent were women. The average age was 36 years (S.D. = 14.5). 25.5% have not psychiatric antecedents. Over the rest, 26.7% had antecedents of depression, 17.6% personality disorders, 7.3% addictive disorders, 3.6% psychotic disorders, 3.6% alimentary disorders and 1.2% of bipolar disorder. The majority (46.7%) have not previous attempts. The more employed method (144 patients over the total) was drug consumption with or without other methods; the most used drug was psychiatric drugs. 7.9% they were admitted in the Hospitalization Unit, without significant differences about sex (6 men, 7 women) and psychiatric antecedents (without antecedents 2 vs. 11). Over 122 with drug intoxication was admitted 6.

**Conclusions:** The majority of the patients attended in ER by suicide attempt are women, a very few percentage has not psychiatric antecedents, especially in the first attempt. The more prevalence method is drug consumption, mainly psychiatric drugs.

**P166**

There are no associations between IgE and anxiety and depression in the adult general female population

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**Background and aims:** There are multiple reports of increased prevalence of anxiety and depression in patients with asthma, eczema and rhinitis. Suggested biological mechanisms underlying these associations most commonly involve IgE. However, the association between anxiety/depression and IgE has hardly been studied, and the aim of the present study will therefore be to examine the hypothesized association between anxiety/depression and IgE in a general adult female population.

**Methods:** A sub-sample of 374 female participants in a population-based general health study in Norway (the Hordaland Health Study) with participation rate 70% was screened for total and allergen-specific IgE. Anxiety and depression was measured employing the Hospital Anxiety and Depression Scale (HADS). This design ensured stronger statistical power than in any previous study of IgE in relation to anxiety and depression, and the population-approach ensured satisfactory variance in both IgE and anxiety/depression.

**Results:** No association between anxiety/depression and total IgE or anxiety/depression and allergen-specific IgE was found. Non-significant tendencies were both positive and negative. This finding was robust across continuous and categorical statistical approaches.

**Conclusions:** Our finding does not question the commonly reported associations between anxiety/depression and asthma, rhinitis and eczema. We do, however, question the relevance of IgE as an aetiological factor in the biological chain underlying these associations.

**P167**

Correlation of socio-demographical and clinical variables in the Moroccan subpopulation looked after in a psychiatric hospitalization unit

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**Introduction:** The preoccupation for an appropriate attention to the immigrant population is increasing in the Spanish National Health System because of its great progression in the last 10 years. The means and resources of the health system are unsuitable to get a proper attention for these new citizens. The population from Morocco in this group is nowadays about 5.4% only in the municipality of Madrid. We think it will be necessary, in our case, the carrying out of breakdown analysis about the special characteristics of this population group. In this way we can improve the resources assigned to an appropriate medical attention.

**Methods:** Since 1996 an analysis of those immigrant patients who require a psychiatric admission is carried out in the Dr. Lafora Hospital from Madrid (Spain). By means of an ad hoc questionnaire different variables, both socio-demographic and clinical, have been collected for 8 years in the Psychiatric Department. These variables are partly analysed at the present moment.

**Results and conclusions:** There are 272 foreign patients (14.4% is from Morocco) who require admission in the Psychiatric

Hospitalization Unit. The socio-demographical characteristics of this population are particularly interesting because they match up with young (30.8 +/- 10 years) men (64.1%), who have a low education level, who do not have a stable couple or family in the country, and who do not have a job (64%) in the moment of the admission in hospital. These characteristics classify those patients as a risk population to suffer certain psychiatric disorders.

**P168**

Statistical analysis of psychiatric admissions of Eastern European immigrants

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**Introduction:** The immigration coming from Eastern European countries constitute, together with the foreigners coming from South America and Morocco, almost the totality of the foreign population in the Community of Madrid. On January the first 2005, 57059 Eastern European immigrants live in the city of Madrid. The characteristics of this immigration type (high feminine immigration, family immigration, high cultural standard) are different from other communities of foreigners in Spain.

**Material and methods:** From January 1996 to December 2004, 272 immigrant patients needed hospital admission in the Psychiatric Hospitalization Unit of the Dr. R. Lafora Hospital (Madrid). By means of a specific questionnaire, different variables, social-demographic and clinical, were registered both in the admission and in the hospital discharge of the patients.

**Results and conclusions:** The group of patients, whose nationality was corresponding to Eastern European countries, presents certain peculiarities like for example a high number of involuntary hospitalizations in the urgency attention (81.2%); a high frequency of the emergency services and the police interventions to lead the patient up to the psychiatric urgency (53.1% and 31.3%); and first of all, the important number of patients that received the diagnosis of Psychotic Disorder and Alcoholism.

**P169**

Unspecific diagnosis in the attention of not Spanish-speaking patients

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**Introduction:** The clinical interview is a fundamental tool in the work of the psychiatrist. The effectiveness of this work is going to be determined by the competence of establishing a proper therapeutic relation; that allows the accomplishment of a meticulous exploration of the mental state of the patient, its formulation in clinical concepts and a therapeutic approximation to the possibilities of the patient and his context (understood as micro and macro-context). For all this, the increasing demand of sanitary attention for the immigrant population come to Spain in the last years represents an enormous challenge of understanding for the professionals of the psychiatry.

**Material and methods:** The goal of this observational and prospective study was to analyze those social-demographical and clinical variables that characterize the subpopulation of immigrant patients hospitalized in a unit of psychiatry. Participants were recounted along 8 years, in the Psychiatric Hospitalization Unit of Dr. R. Lafora Hospital (Madrid).

**Results and conclusions:** 272 immigrant patients needed psychiatric hospital admission. A high percentage corresponds to patients coming from South America who know the language. Nevertheless, the great majority of the patients come from a different culture from the occidental one. An analysis of the diagnosis results (high number of unspecific diagnosis, poor attention to axis II and excessive tendency to the psychotic disorder diagnosis) reveals us the enormous difficulty of the psychiatrist to realize a suitable evaluation of these patients, either for the handicap of the language or for the different cultural interpretations.

## P170

Anticipation of schizophrenic patients as the indicator of the course of illness and prognosis of schizophrenic patients

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In the Republic Croatia there has been register of psychotics for many years that has enabled many clinical, epidemiological and genetic researches. One of many interests was research of specific qualities of regions with higher and lower prevalency of shizophrenia. The results of those studies were mostly conducted in collaboration with American experts. They showed that, due to intensive emigrations and immigrations, there are regions in Croatia with positive hereditary burden of shizophrenia and regions with no such burden.

During the last war in Croatia some new migrations occurred. It stimulated us to conduct a new epidemiological study with following aims:

- to see if the anticipation of enrolled schizophrenic patients is significant
- to see if the anticipation is dependent on regions where patients come from
- to see if the beginning of the illness is different dependently on region with evidenced hereditary burden or just on positive heredity of patients.

**Methods:** We will ask at least 40 schizophrenic patients with positive heredity (among closest relatives) about the nature of kinship, the age of the beginning of illness, subcategory of shizophrenia and compare it to a diagnostic category and to a course of the illness of their relatives.

After statistical analysis we will comment our results and try to explain possible influences of positive heredity and possible hereditary burden of the regions where the patients have come from. We will also compare our results with those results gained from Croatian population about 25 years ago.

## P171

Reliability analyses of the Greek version of the VSSS-54 (Verona Service Satisfaction Scale)

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**Aims:** To describe the reliability analyses of the Greek version of VSSS-54.

**Methods:** The adaptation procedure was: translation, back-translation, focus groups and target checking. One hundred and fifty patients were selected (87 women, 63 men), whose age ranged from 18 to 65 ( $M = 43.7$ ). Sixty-four had diagnosis of shizophrenia/psychosis, 74 affective disorder and 10 anxious disorders.

Three kinds of reliability tests have been used: a) Cronbach's  $\alpha$  to check the internal consistency of the whole questionnaire and the

different dimensions b) the Intra-class Correlation Coefficient to evaluate test-retest reliability of the VSSS 54 total mean score and dimensions mean scores and c) Cohen's weighted  $k$  to evaluate test-retest reliability of single VSSS-54 items.

**Results:** The  $\alpha$  coefficient for the VSSS total score was: 0.92 (95% CI. 0.878–0.95). The test-retest reliability: a) on the VSSS 54 mean score was: 0.83 (CI 95% 0.73–0.89), b) on the mean scores of each dimensions ranged from 0.83 (CI 95% 0.74–0.89) to 0.96 (CI 95% 0.93–0.98) and c) the weighted  $k$  was: 0.81–1.00 ('Almost perfect') 13 items, 0.61–0.80 ('Substantial') 39 items, 0.41–0.60 ('Moderate') eight items and 0.21–0.40 ('Fair') two items.

**Conclusions:** The psychometric properties of the Greek version of the VSSS 54 are very good, which proves that it is a reliable instrument to use in the Greek context.

## P172

Sex-related differences in the alexithymia clinical construct

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**Background and aims:** The alexithymia construct is generating increasing interest as a possible personality risk factor for various psychiatric and psychosomatic disorders. Researchers assessing alexithymia's impact onto the life of an individual suggested associations between alexithymia, population demographics and various aspects of psychopathology. The purpose of this study is to explore the possibility of sex-related differences in the total score of the TAS-26 alexithymia scale.

**Methods:** Four hundred and forty-seven individuals, 182 men and 265 women, completed the TAS-26 questionnaire. Mean age of our patients was 23.36 years ( $s = 6.78$ ). Regarding the educational level in years, 17 individuals (3.8%) had none to 6 years, nine individuals (2%) 7–9 years, 25 individuals (5.6%) 10–12 years, 390 individuals (87.2%) 13–16 years and 6 individuals (1.3%) had more than 16 years of education.

**Results:** Results have shown that there were 97 individuals (21.7%) of our patients with a pathological (74 and higher) total score, of whom 65 were women and 32 men (comparative percentages 67–23%). This difference between women and men was statistically significant,  $t(94.87) = 3.17, P = 0.002$ . An analysis of covariance was used to assess whether women have higher total scores than men, after controlling for differences in age and educational level. Results were statistically significant,  $F(1.93) = 7.25, P = 0.008$ . Mean score differences between the sexes indicate that women continue to have higher total scores than men, after controlling for age and educational level.

**Conclusions:** Alexithymic manifestations in our research sample were more frequent in females and this statistical difference persists after controlling for age and educational level.

## P173

Frequency, intensity and some of the related factors of premenstrual syndrome (PMS)

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**Objective:** A survey about frequency, intensity and some of the related factors of PMS, was performed.

**Method:** A field study was performed on 400 female students who were in their last year of highschool in Kerman, Iran in 2004. Then frequency, intensity and some of the related factors including age,

menstrual pattern (duration of bleeding and cycle length), nutritional habitus (amount of candy, nuts, water, juice, milk, caffeine, sweet using), and regular daily exercise was evaluated.

**Results:** Of 400 students, 266 students (66.5%) had PMS. PMS was mild in 166 cases (62.4%), moderate to severe in 100 cases (37.6%). Two groups showed statistically significant differences according to age ( $P < 0.05$ ), high intake of nuts and candy and water ( $P < 0.05$ ), high intake of milk ( $P < 0.01$ ) and, caffeine ( $P < 0.01$ ), and regular daily exercise ( $P < 0.001$ ) but menstrual pattern and juice intake did not have significant difference.

**Conclusion:** With doing daily exercise and changing the nutritional habitus (lowering of nuts, candy, water, milk, caffeine intake) can reduce PMS.

## P174

Psychosocial profile and service satisfaction of children and adolescents users of two mental health mobile units in Cyclades Islands

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**Introduction:** The two Mental Health Mobile Units (MHMU), which function under the responsibility of EPAPSY, were founded in 2003, covering the psychiatric needs of 11 Greek islands situated in the remote region of Northeastern and Western Cyclades. Their basic priorities are: provision of treatment through the Primary Health Care (PHC), recording of psychiatric needs, sensitization and promotion of mental health.

**Aims:** 1. Recording of data and referrals concerning children and adolescents seeking diagnostic assessment and treatment during the first year of operation of the two mobile units.

2. Assessment of parents satisfaction by the services provided.

**Methods:** Data collection on sociodemographical characteristics, referring agent and demand during the period 2003–2004 for all children and adolescents who used the services provided by the 2 MHMUs. Verona Service Satisfaction Scale (Ruggeri M. and Dall'Angola R., 1993) was also used.

**Results:** MHMUs provided services to 1081 persons (67% females). Out of them, 34% were referred from PHC services, 24% from social services, while the rest contacted the service without referral. The most frequent psychiatric demands for children and adolescents concerned assessment and intervention for learning disorders, behavioral disorders, speech disorders and developmental disorders. Most of parents asked were very satisfied by the services provided.

**Conclusion:** A continuous process of integration between PHC and MHMU, close collaboration with educational services, continuous training and evaluation are some of the factors playing a significant role in order to improve the quality of care provided by the MHMUs in children and adolescents.

## P175

Psycho-social and clinical aspects of suicidal behavior in Basel, Switzerland

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Suicidal behavior poses a challenge for the Swiss health care system. Even though the suicide rate decreased from 27 to 19 per 100,000 in the last decade, it is still rather high compared to other European

countries. The rate of attempted suicide is estimated 15–50 times higher. These figures highlight the difficulties in obtaining reliable epidemiological data concerning suicidal behavior.

In the WHO/EURO multi-center study 50% of patients hospitalized for a suicide attempt have at least once tried suicide in the preceding 12 months. This raises the question of how we can improve prevention of suicide via aftercare. In order to advance prevention and therapeutical intervention reliable clinical data are as important as a deeper understanding of socio-cultural influences.

This study includes all patients living in the canton of Basel-City who came to medical or psychiatric attention for suicidal behavior. Psychiatric diagnostics are assessed using SKID I and II interviews, HAM-D, MDI and SCL-90-R. Socio-cultural aspects are investigated with a culturally adapted semi structured interview catalogue, called EMIC.

Results of the pilot study ( $N = 18$ ) indicate that all but one patient were diagnosed with at least one psychiatric disorder, the main categories being mood disorders (72.2%) and substance abuse (44.4%). A questionnaire about psycho-social stressors revealed major health problems during the last 12 months in 66% of the patients. However, patients rarely reported these burdens in the EMIC-interview as contributing to their suicidal behavior. Nevertheless these factors should be included into further considerations towards the prevention of suicide.

## P176

Use of antidepressants and suicide rate in Finland—an ecological study

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**Background:** The suicide rate has decreased in many countries while the use of antidepressants have increased greatly.

**Aims:** To study the associations between use of antidepressants and suicide rate.

**Method:** Population based rates of suicide rate and reimbursed prescriptions of antidepressants between 1994 and 2001 in Finland were analysed in the whole population and separately by gender, age and geographical regions.

**Results:** The decline of suicide rate was significantly associated with use of antidepressants among 15–64 years old men in three regions. The decline of suicide rate among 15–45 years old women was significantly associated with the use of antidepressants in one region. Use of antidepressants had a significant effect on decrease in suicide rate ( $RR = 0.976$ , 95%CI 0.958–0.995) despite background variables, their interaction and the course of time.

**Conclusions:** Increase in use of antidepressants may decrease suicide rate. Baseline suicide rate and access to health care may influence this association.

## P177

Evaluating mental health services in the community

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**Objective:** This study aims to evaluate rendered mental health services through the investigation of those factors which are related to non-compliance with therapy and which affect treatment outcome.

**Methods:** Data were collected from the files of all new cases who applied to a Community Mental Health Centre in Athens during 2000–2002 ( $N = 476$ ).

For each case, the following factors were examined: age, sex, family situation, parents' educational level, referral source, child's psychiatric and psychosocial diagnoses, type of proposed therapy, number of sessions, phase at which termination of therapy occurred and outcome.

**Results:** 45.7% of the sample did not complete therapy. Treatment compliance increased when the patient was male, with a diagnosis of a specific developmental disorder, treated in a well-structured therapy programme, was from a healthy family environment and his mother was better-educated. On the contrary, an adverse family situation (parents not living together, inadequate parental supervision) and the female sex had a negative effect on treatment compliance. Most of the cases discontinued their treatment upon completion of the diagnostic procedure. Referral source did not influence treatment compliance.

**Conclusions:** Evaluation of our service has shown that more attention should be paid to lower-educated families and those in adverse situations, particularly when the patient is female. A well-structured intervention programme with clear goals seems to have a more successful outcome.

## P178

Consultation-liaison psychiatry in the neuchatel mountains. An epidemiological survey in 1994 and 1998

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The consultation-liaison psychiatry (CL) has made during the last decade major strides under the impulse of the European Consultation-Liaison Workgroup (ECLW). In Switzerland, the discipline remains to develop owing to the lack of specialized consultants. Nevertheless, a progressive harmonization of the data collection and assessment appears according to the European standards. To improve its CL practice, which until then was frustrating by a feeling of overflow and missing of feedback of the interventions, the Centre Psychosocial Neuchâtelois (CPSN) constituted a computerized CL data base as recommended by the ECLW. We compared our CL activity in the medicine department in 1994 (78 cases), year of the beginning of the CPSN data base computerization, and in 1998 (108 cases), year of the most recent exploitable results. The outcome of our retrospective and descriptive epidemiological survey showed an increase in the volume of the CL demand, a diversification and a complication of the cases. This increasing load on CL was also described in the literature. The psychiatric response of the CPSN showed a modesty of means and the pragmatism in the style of the interventions. These last ones were primarily of general and emergency nature, focused on suicide attempts. The inventory of our CL practice allowed creating a simplified data base for the entire CPSN concerning any consultation request. So today, we regulate easier the demand flow. Moreover, we educate the medical colleagues to formalize their request to optimize the response of the consultants.

## P179

In the general population, hypothalamic-pituitary-adrenal system dysfunction is associated with serious somatic disorders

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**Background:** A dysfunctional hypothalamic-pituitary-adrenal (HPA) system is frequently found in major psychiatric disorders, e.g. depression, and may constitute a significant cause of somatic sequelae.

To date, however, there is only scarce information on the prevalence of HPA-dysfunction and associated mental as well as physical disorders among the general population.

**Methods:** In a representative sample of 1208 residents of the Augsburg area, we analysed saliva cortisol concentrations at four precise points, namely at wake-up (F1), as well as 1/2 h (F2), 8 h (F3), and 14 h (F4) after getting up. Subjects were between 50 and 70 years old. Detailed information was gathered on demographic, anthropometric and medical issues.

**Results:** Rigid exclusion criteria left 1048 cases for further analyses. An increased body mass index was associated with lower morning (F2,  $r = 0.09$ ,  $P < 0.05$ ) and higher evening (F3,  $r = 0.09$ ,  $P < 0.05$ ) cortisol levels. In men, the presence of both diabetes mellitus and past myocardial infarction (MI) was associated with a diminished circadian cycle amplitude (diabetes vs. no diabetes: F2 = 16.9 + 8.8 vs. 20.5 + 8.1 nmol/L,  $P < 0.001$ , F4 = 3.1 + 4.6 vs. 2.3 + 3.3 nmol/L,  $P < 0.001$ , past MI vs. no past MI: F2 = 16.5 + 8.5 vs. 20.3 + 8.2 nmol/L,  $P < 0.005$ , F3 = 6.5 + 3.8 vs. 5.4 + 3.8 nmol/L,  $P < 0.05$ ).

**Conclusion:** In a representative sample of 50–70 years old subjects, a flattened circadian cortisol cycle was shown to be associated with obesity, and, in men, with diabetes mellitus and past myocardial infarction.

## P180

Comparison of postpartum psych morbidity: Spanish vs. immigrant mothers

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**Objective:** 1) To estimate the prevalence of psychiatric morbidity in Spanish and Hispanic immigrant mothers, assessed by clinical diagnosis at 6 weeks after delivery. 2) To validate EPDS scale as a measure to detect morbidity in immigrant mothers.

**Method:** Two-phase sampling cross-sectional study. In the first phase, all the consecutive mothers who attended in routine postnatal check-up were selected and were administered EPDS (Spanish  $n = 1214$ , Immigrant  $n = 184$ ). In the second phase, a randomised subsample of 30% of the women (Spanish  $n = 340$ ; Immigrant  $n = 57$ ), who were stratified according to EPDS score, were interviewed to establish the psychiatric diagnosis according to DSM-IV.

**Results:** No significant differences were found in the prevalence of psychiatric morbidity between Spanish (17.8%; CI95%:14.4%–21.8%) and immigrant (21.6%; CI95%:13.1%–33.6%) mothers. No significant differences were found regarding main diagnosis, even though immigrant mothers had a higher rate of depressive disorders and a lower rate of anxious disorders in comparison with Spanish mothers. No significant differences were found in the area under ROC curve of the EPDS between immigrant (0.957; CI95%:0.91–1.00) and Spanish mothers (0.948; CI95%:0.928–0.968).

**Conclusions:** Postpartum psychiatric morbidity in Hispanic immigrant mothers is not different from that observed in Spanish mothers. Immigrant mothers show a tendency to suffer from a lower rate of anxious disorders, suggesting a different expression of psychomorbidity. EPDS seems to be a good instrument for the detection of postpartum psychiatric morbidity in Hispanic immigrant mothers.

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### P181

Serum cotinine and exposure to active and passive smoking at the end of pregnancy

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**Background and aims:** Adverse health effects of tobacco use among smokers are well known but environmental tobacco smoke also increases risks of many diseases among non-smoker. This study investigated tobacco exposure among pregnant women (including passive smoking) and their newborn.

**Methods:** Cotinine concentrations were measured from maternal and umbilical serum samples by a new gas chromatography—mass spectrometry method. Samples and questionnaires on smoking habits were obtained at delivery.

**Results:** Maternal serum cotinine concentration correlated significantly with its cord concentration ( $n = 952$ ,  $r = 0.86$ ,  $P < 0.0001$ ). This correlation is stronger in the group of smoking mother than in the nonsmokers ( $r = 0.92$ ,  $n = 226$ ,  $P < 0.0001$  vs.  $0.73$ ;  $n = 716$ ,  $P < 0.0001$ ). Cotinine level in cord serum represents 78.2% of cotinine level of smoking mother ( $n = 222$ ) and its mean ( $68.7 \pm 79.8$  ng/ml,  $n = 226$ ) is significantly different from cord level in nonsmoking mother ( $1.6 \pm 7.5$  ng/ml,  $n = 716$ ). Among self-reported nonsmokers ( $n = 757$ ), 55.2% declare to be exposed to tobacco smoke during their pregnancy. They had serum cotinine levels statistically upper the nonexposed nonsmokers ( $3.3 \pm 16.4$  ng/ml,  $n = 431$  vs.  $1.0 \pm 1.9$  ng/ml,  $n = 339$ ).

**Conclusion:** Serum cotinine appeared to be an objective and precise biomarker of exposure to smoking. There is a quantitative dose and effect relation between tobacco exposure of mother and his foetus. Passive smoking in nonsmokers is easily detected. Self-reported data on smoking and environment in association with this specific detection may be an accurate measure.

### P182

A historical cohort study of sleep disturbances and duration of sleep as risk-factors for mortality. The HUNT study

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**Objective:** Study prospectively the effect of sleep-related complaints and sleep duration on all cause mortality in a general population sample.

**Method:** The data were gathered from the adult population from the County of Nord-Trøndelag as part of a general health survey which had a participation rate of 71.2%.

Data included self-reported somatic disorders, somatic symptoms, health related behaviour, impairment, public benefits, medication use, anxiety and depression as well as anthropometric measures, blood pressure and cholesterol level.

**Main outcome measure:** Mortality during a 4-year period following the general health survey as recorded in the Norwegian Death register.

**Results:** An ordinal five point scale of sleep disturbance predicted mortality in the observation period, even in the probable over-adjusted model including all available confounders. The variables that most strongly accounted for the effects of the sleep disturbance were (in order of magnitude) somatic diagnoses, health related behaviour, anxiety and depression, subjectively reported physical impairment, educational and social differences, blood-pressure, cholesterol level, and BMI. Time in bed was strongly associated with mortality, and the association was U-shaped. Compared to the median value of 7 hours, spending either less or more time in bed predicted death.

**Conclusions:** Sleep disturbances as well as spending either short or long time in bed are predictors of mortality. Both predictors are robust for adjustment for multiple confounding factors.

### P183

Childhood predictors for cigarette smoking. A prospective birth-cohort study

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**Objective:** To study childhood psychopathological deviance as a precursor for cigarette smoking among late-adolescent males in a representative birth-cohort study.

**Design:** In 1989, a general population sample of 2946 8-year-old boys was collected. Three different informant sources were used: parents, teachers, and the boys themselves. The follow-up was 10 years later in 1999, when the boys were called up for their mandatory military service at age 18. Information about cigarette smoking frequency was obtained from 78.3% ( $n = 2307$ ) of the original sample.

**Setting:** Finland, nation-wide. In 1989 at schools, in 1999 at the mandatory military call-up.

**Participants:** General population sample of Finnish boys born in 1981.

**Measurements:** At age eight, the Rutter A2 scale, Rutter B2 scale and Child Depression Inventory (CDI) were used. Information about family structure and educational level of the parents was collected. At age 18, self-reported cigarette smoking frequency during the preceding 6 months was determined

**Results:** At age 8, hyperactive and conduct problems and child's self-reported depressive symptoms predicted smoking, while emotional problems predicted lower occurrence of smoking at age 18. In the multivariate analysis including information from all three different informants, family background and reports provided by children and teachers predicted subsequent heavy smoking.

**Conclusions:** In addition to childhood ADHD and conduct symptoms, childhood depressiveness may increase the risk of adult smoking whereas childhood anxiety may protect boys for adult smoking. The school health care system has a potential role to recognize those children at risk for daily smoking.

**P184**

Prevalence of psychiatric disorders in the Greek site of Evia

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**Backgrounds and aims:** This study is part of a large scale international action research conducted by the Scientific Association for the Regional Development and Mental Health (EPAPSY), in collaboration with the WHO Collaborating Centre, Lille, France. It provides information on mental health needs in the Greek island of Evia. The aim of the study is to assess the prevalence of psychiatric disorders in the general population of Evia.

**Methods:** The following measures were used for the purpose of the study:

1. Mini International Neuropsychiatric Interview (Lecrubier and Sheehan, 1997) in order to assess the presence of psychiatric disorders according to ICD-10 diagnostic criteria.

2. A questionnaire was used to collect sociodemographic data.

The sample consists of 900 persons from the general population of Evia, according to the method of quotas.

Data analysis was carried out on SPSS.

**Results:** Twenty-nine percent of the general population suffered at the time of the study from at least one psychiatric disorder. Specifically:

- 16.8% suffered from a mood disorder
- 17% suffered from an anxiety disorder
- psychotic like symptoms were present in 2.22% of the general population
- Alcohol related disorders were found in 2.89% and disorders related to drug use were found in 1% of the sample
- suicide risk (high, medium or low) was present in 7%

**Conclusion:** The assessment of prevalence of psychiatric disorder in a specific area of study is a first step in order to plan, implement and develop actions and services adapted to the particular needs of the population.

**P185**

Characteristics of immigrant patients in our psychiatry Emergency Service

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**Background and aims:** In the last few years we have noticed an increase in the number of immigrant patients that have required psychiatric attention in the Emergency Service. Our aim is to describe epidemiological and clinical characteristics of these patients in order to know which are the items that most influence in their mental state.

**Methods:** We have designed a prospective and observational study taking into account the following items: gender, age, initiative, if accompanied, reason, nationality, legal situation, time of stay, civil situation, living situation, laboral situation, parenthood, psychiatric antecedents, psychofarmacological treatment, illness onset, diagnosis, result.

The study is being carried out in the Donostia Hospital which is the reference to a population of 800,000 people.

**Results:** By the moment we have observed that approximately 1 out of 10 patients attended are foreigners most of them from South America with adaptative disorders. As for the African patients it seems that the majority suffer from psychotic disorders.

Another association more less frequent in our area is the one between alcohol disorders and East European patients.

**Conclusion:** We can conclude that the geographical precedence influences in an important or determinant way in the type of mental disorders. The proportion of immigrant patients attended in the Emergency Service is rapidly increasing.

**P186**

Sexuality and sexually transmitted diseases (STD) in the psychiatric Belgian world

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Considering the vulnerability to Aids, a survey on the sexual behaviour and on STD has been conducted in 14 psychiatric Belgian hospitals (PH) by a significant statistic sampling of patients, their families and hospital staff members (HSM).

A questionnaire has been developed for every group by sample of the target population. Here are the results of HSM.

The questionnaire has been sent at 581 HSM (61% of answers). HSM judge of 60% that PH doesn't have policies of (in)formation on sexuality, procreation (65%), contraception (60%) and protection against STD (65%). This same PH is concerning enough of the affective life (85%), the physical intimacy (83%), and solitude (91%). 56.8% and 62.2% estimate the sexual relations prohibited in the hospital or in the department, 5.6% and 3.7% authorised. for 19%, there is no intra-muros sexuality and few for 66%. 53.7% are talking about multipartners, 18% of homosexuality and 45% of prostitutes. 4.6% are talking about vaginal rapes, 9% of anal rapes. for 60%, the patients aren't informed of the risks of STD before and during hospitalisation. 70% of the HSM recommend the condom. 50% estimate that a big majority of the patients knows it but 14% that patients can use it. 67% wants to put the condom at patient disposal.

80% know the universal precautions, 57% apply and 39% don't but for 79% Aids may be responsible of work injuries and 91% for hepatitis B. A serologic detection has to be systematic at the admission (57%) with assent of the patient (30%).

**P187**

Premenstrual syndrome and associated symptoms in adolescent girls

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**Background and aim:** The Premenstrual Syndrome (PMS) is defined as the repeated occurrence of psychic disability accompanied by physical symptoms. Our objective was to evaluate the prevalence of PMS during one menstrual cycle, in adolescent girls.

**Methods:** The 15450 adolescent girls who had menstrual cycles were included in this study. DSM-IV criteria were used for the diagnosis of PMS. The symptoms of PMS were classified in three categories: Mood symptoms, behavioral symptoms, and somatic symptom.

**Results:** Among 15,450 adolescent girls interviewed, 1701 (11%) met the criteria of a potential PMS. The mean age of the population with PMS was 15.9 ± 1.4 years ranging from 12 to 19 years. The 88%, 74%, and 69% of PMS students had at least one symptom of mood, somatic, and behavioral symptoms respectively. The most common mood symptoms were weakness (56%), depressive mood (50%), and anxiety (45%). The most common somatic and behavioral symptom

was arthralgia (56%) and hypersomnia (34%) respectively. The mean of number of symptoms was higher among students that their parents were illiterate ( $P < 0.02$ ). The number of mood symptoms increased with age of adolescents girls.

**Conclusion:** This study indicates a significant prevalence of PMS and the adolescent girls need more attention especially about mood symptoms at end of adolescent period.

### P188

Socio-cultural determinants of attitudes toward medication among adult patients hospitalized in psychiatry

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**Background:** Pharmacokinetic, pharmacodynamic, genetic and other biological factors influencing individual responses to drugs are being extensively studied in the field of psychiatry. Strikingly, there are few studies addressing the impact of non-biological factors upon drug treatment outcomes. These factors are nonetheless known to be important and to impact upon adherence to treatment.

**Objective:** To investigate the influence of socio-cultural factors on drug treatment outcomes among a sample of hospitalized psychiatric patients.

**Methods:** An ad hoc questionnaire was designed to assess patients' expectations, attitudes and prejudices toward medication. 19 variables were investigated among a sample of 100 hospitalized adult patients.

**Results:** Patients were in majority male (63%), Swiss (54%) and spoke the local language (93%). Patients took on the average of 3 different psychotropic drugs. 65% of the patients expect negative side effects and 60% would be ready to stop their treatment because of them. 30% of the patients expect negative personal changes with the treatment and 30% think that their disorder could be treated without drugs. 35% of the patients treat themselves with parallel medicines. A majority (55%) of immigrant patients believed that medication had different effects upon themselves than expected among local patients. They also attached more importance to their relatives' opinion about medication ( $P = 0.03$ ) and valued more frequently information provided by other patients ( $P = 0.019$ ).

**Conclusions:** Patients' attitudes toward medication should be investigated in clinical practice, as specific expectations and prejudices exist. Targeted interventions, especially for immigrant patients, might improve adherence.

### P189

Lower life satisfaction among doctors compared with the general population: a 10-year longitudinal and nationwide study of course and predictors

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**Background and aims:** Studies that focus on doctors' well-being and preventive factors are highly required. We describe the levels, course, and predictors of life satisfaction among doctors.

**Methods:** We conducted a longitudinal nationwide cohort study ( $N = 631$ ) of Norwegian graduating medical students (T1), followed up in their first (T2), fourth (T3) and ninth (T4) postgraduate years.

Response rates varied from 62% to 83%. We used comparison samples from a general population survey.

**Results:** Doctors of both genders had significantly lower levels of life satisfaction (and more dissatisfaction) than did those in the comparison samples. Life satisfaction was lowest at T1, improved at T2, and stayed at the same level thereafter. Adjusted predictors of life satisfaction at T4 were lower age ( $P = 0.02$ ), low level of vulnerability personality trait (neuroticism) ( $P = 0.02$ ), being married/cohabitant ( $P < 0.001$ ), perceived social support ( $P < 0.001$ ), lower work stress ( $P = 0.001$ ), and frequency of physical training ( $P = 0.04$ ). Only one-fifth of the total explained variance ( $R^2 = 0.32$ ) was due to personality traits, whereas half was explained by married/cohabitant status and perceived social support. All the predictors above, except for age and vulnerability trait, remained significant when mental distress (anxiety and depressive symptoms) was included in an additional multivariate model ( $R^2 = 0.49$ ).

**Conclusions:** Doctors have lower levels of life satisfaction and more dissatisfaction than the general population. Situational factors such as social support were major predictors independent of mental distress, whereas personality had a relatively small predictive impact.

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## Poster session 2: Stress

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### P190

The effects of an acute mental stressor on heart and platelets in patients remitted from major depression

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**Background:** Depressive syndromes are associated with increased cardiovascular morbidity and mortality. As in the majority of depressed patients, stress-responsive systems show greater activation, this factor may well contribute to the observed cardiovascular risk. It has not been clarified, however, whether the activity of these systems remains higher in remitted depressed patients without psychotropic medication.

**Methods:** We investigated 22 female patients (age  $55.5 \pm 7.9$  years) remitted from major depression, all of them free of psychotropic medication and 22 age- and gender-matched healthy controls (age  $53 \pm 7.9$ ). The Groningen Acute Stress Test was used to challenge the stress-responsive systems. The subjective stress level was determined via visual analogue scale (VAS). Spectral analysis of heart rate variability gave information on vagal and sympathetic input in autonomous nervous system function by differentiating the low (LF) and high frequency (HF) band. The extent of platelet activation was measured by flow cytometric determination of the surface activation markers P-Selectin and GP53.

**Results:** There was a higher step-up of the LF/HF ratio associated with the stress test in patients remitted from depression as compared with healthy volunteers (ANOVA for LF/HF:  $P < 0.001$ ), indicating a faster sympathetic arousal. According to VAS, however, healthy volunteers reported experiencing high stress levels earlier than remitted patients (ANOVA for interaction VAS x group:  $P < 0.01$ ). Platelet activation markers were similar in both groups.

**Conclusion:** Study results indicate a higher increase of sympathetic activation in patients remitted from major depression, but no group differences in platelet activation markers.

**P191**

Effects of hospitalized stressors by patients

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**Introduction and aim:** Recognition of physical and mental problems as a predictor of various criteria of success, and or speed of recovery from illness has an important role in patient management. A research was done to determine the type and intensity of physical and mental problem perceived by patients during their hospitalization.

**Methods:** A survey study was done randomly on 320 hospitalized patients chosen from medical-surgical wards of some Public Hospitals in the Isfahan in Iran. Basic tool for data collection was a questionnaire. The patients were asked to determine whether they faced any physical and mental, and if so, verified the intensity of each event in an ordinal answer.

**Results:** The first high-ranking problems reported by patients were in the field of perception of treatment of illness. The second problems were loss of patients' role in family and society. The high score problems were inadequate visitation by relatives. The thirds highest important problems were related to dependency of diseases. Asking assistance for urination and defecation, long stays in bed, lack of knowledge about the diagnosis and treatment of illness, and unanswered questions by personnel. The most important problems in regards to the changes in life habits were. And having difficulties in practicing religious duties.

**Conclusions:** Some aspects of the experiences of hospitalization perceived as High ranked problems are related to the lack of meaningful communication. Therefore, there is a need to instruct nurses and other health coworkers about the psychological aspects of patient hospitalization, and supportive management of patients.

**P192**

Psychiatric morbidity and pain in stress-related syndromes

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**Background and aims:** To investigate frequency of psychiatric comorbidity and pain in 100 patients referred to CEOS (Center for Environmental Illness, Health and Stress), University Hospital, Uppsala.

**Methods:** 105 patients, 78% women and 22% men, with stress-related diagnoses (exhaustion syndrome, chronic fatigue, fibromyalgia syndrome, long-term stress), who were referred to CEOS from general practitioners for second opinion and help with treatment, were enrolled in the study. All patients were interviewed with the psychiatric interview instrument MINI. Besides other things, they also scored their possible local and diffuse pain on a 100 mm VAS scale.

**Results:** 76% of the patients had some psychiatric diagnosis according to the MINI. Major depression and dysthymia were the most frequent diagnoses, 45% and 37% respectively. But also panic syndrome and general anxiety were very frequent (26% and 31% respectively).

Perception of pain was also very frequent with e.g. 40% of the patients scoring between 89 and 100 on VAS when comes to local pain, and just as many had between 80 and 100 when it came to generalized pain.

**Conclusions:** Among patients with stress related diagnoses there was a high frequency of co-morbidity with psychiatric syndromes and pain. Both the psychiatric syndromes and the pain states contribute to long lasting sick leave as well as to unnecessary suffering. It is therefore important to assess the presence of psychiatric syndromes and the perception of pain to reduce sick leave and shorten the period of ill health.

**P193**

Efficiency of new and traditional therapy approaches in military men – combatants

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Posttraumatic stress disorders (PTSD) in combatants in later period are accompanied by personality and behavioral disorders. Opportune diagnostics and objective appraisal of treatment and rehabilitation presented an urgent problem.

Subjects were 300 military men – participants of operations during a period no less than 12 months.

**Methods:** clinico-psychopathological, pathopsychological, psychophysiological (diagnostic system AMSAT-COVERT), mathematical – discriminant, cluster analysis.

**Results:** At the regular diagnostic level using principals of the evidence-based medicine we demonstrated that comparative efficiency of different therapeutic approaches depends on the severity and duration of the combined personality and somatic disorders conditioned by psychosomatic constitution.

**Conclusion:** Psychophysiological-mathematical diagnostic models of somatic and mental disorders in combatants are effective in working out of psychophysiological personality "profile", realizing of dynamic control of somatic and mental health, revealing of early signs of desadaptation, premorbid symptoms and pathology in the context of nosologic units, assessment of effectiveness of therapy approaches and medico-psychological correction of desadaptation and premorbid disorders.

**P194**

Diagnostics and therapy of victims of terrorism: methodological principals

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Subjects were 1228 hostages in Budyunovsk (1995) and Beslan (2004), 200 healthy volunteers and 150 patients with neurosis caused by everyday life psychologic traumatic experience.

Clinical, pathopsychological and psychophysiological methods of investigation and discriminant statistical analysis were used. All patients were divided into 4 basic personality psychotypes – with schizoid, epileptoid, hysteroid and cycloid personality structure. Than all patients were classified in personality constitutional continuum: the range of psychological norm – accentuation, the range of borderline anomalous personality (BAP).

The results. Mechanism of psychopathological pathokinesis was revealed in the representatives of psychological norm and BAP. Centers of set projections of the norm and BAP psychological

and psychophysiological means average appeared to be at a distance of 77 reference units (Machalanobis-square); centers of the norm and healthy volunteers set projections were at a distance of 212 reference units; centers of the healthy volunteers and neurotic patients set projections - at a distance of 20 reference units. Discriminant analysis demonstrated possible formation of the pathopsychologo-mathematic and pathopsychophysiologo-mathematic model of victims of terrorism and neurotic patients differential diagnostics. (pic.1)

Pathogenetic complex technologies included intravenous infusion of complex pharmacological compositions (PC) and methods of psychotherapy, aimed to the elimination of biological and mental consequences of the global stress – terrorism, beginning from the early period after liberation. PC structure changed depending on the range in personality constitutional continuum. Later on constitutional therapeutic approach was oriented to individual typological personality predisposition.

### P195

Diagnostics and differential diagnostics of psychosomatic disorders using AMSAT system in victims of terrorism

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568 inhabitants of Budyonovsk, Mineral Waters, Essentuki, Beslan - victims of terrorist attacks, were entered into the research. Methods of research: clinical, psychological, pathopsychological, psychopathological, psychophysiological (diagnostic system AMSAT-Kovert), mathematical – discriminant and cluster analysis.

**Results:** Development of psychosomatic disorders in victims of terrorism resulted, first of all, in the destruction of the supreme mental functions, next - central nervous and neuroendocrinal systems, causing social disadaptation. The discriminant analysis has allowed to construct differential-diagnostic models choosing the conducting leading factor - exogenous, endogenous, and psychogenic.

**Conclusions:** Sharp destructive social stress lead to the development of pathological and non-pathological disadaptation. The above process at the psychophysiological level increase the time of adaptation reaction on the trite irritant. Thus, first of all, the central nervous system, the central sections of vegetative nervous system, organs of sense suffer.

Psychophysiological researches confirm existence of pathogenetic mechanisms of stressogenesis leading to the nervous tissue hypoxia and development of necrosis focuses. The data obtained provided necessity of antihypoxic treatment in the complex of therapeutic and rehabilitation actions aimed to prevent transformation of functional and premorbid disorders into the pathological, irreversible morphophysiological changes in victims of terrorism.

### P196

Burn Out: psychiatric impact and psychosocial outcomes

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**Background:** Burn Out (BO) was described by Maslash as a professional syndrome characterized by a progressive exhaustion of the emotions, cynism and a decrease of self accomplishment.

**Aim:** To assess the psychiatric impact of BO and the psychosocial outcomes.

**Methods:** Design: Retrospective study.

**Probands:** All outpatients ( $N = 395$ ) of a specialized consultation on stress (Clinique du Stress, CHU-Brugmann, Brussels, Belgium) who met the criteria of pathological stress where assessed since 2003–2005. For 331 outpatients the main source of stress was imputed to work and within these: 57 was in extreme BO (level 8) and 55 were not in process of BO following the Maslash criteria.

**Results:** ( $P = 0.01$ ): Patients with BO = 8 have a high score of mental suffering at the GHQ-28 ( $m = 21.37$  S.D. 4.25; cutting point = 5 maximum 28) and they have a suffering higher than patients without BO ( $m = 14.47$  S.D. 6.08, ANOVA  $P = 0.0000$ ). Job strains are significant for all domains (Legeron scale). They have more difficulties to manage stress situations. As outcomes: the work disablement was higher for BO = 8 ( $m = 8.41$  months vs. no BO  $m = 4.51$ ).

**Discussion:** Is BO a depression? There is a significant correlation between BO scores and the GHQ depression subscale or the Beck Depression but 66% of these patients don't reach the cutting points of these scales.

Is BO specific of some types of work? (Vocation, contacts with the public, work in team, abilities to relationships) No differences were found but nearly all domains of the Legeron scale were met.

### P197

Religious moral norms as a factor of coping with stress during adolescence

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Many authors agree that adolescence itself presents a stressful period of human life.

The aim of this paper is to determine the impact of religious moral norms on the ability of coping with stress during adolescence.

The sample consists of 240 mentally and physically healthy male and female adolescents attending a high school, who are divided into groups equalized by gender (male and female), age (younger 15, older 18 years); school achievement (very good, average student); behavior (excellent, average); family structure (complete family with satisfactory family relations), and level of exposure to psycho-social stress (they were not exposed to a specific traumatizing events). Subjects were assessed with regard to the level of belief in some basic ethical principles that arouse from religious moral values. The score of moral belief index compared two groups of subjects. for sample selection the measuring instruments were used to assess religious, moral and social profile of subject. for the assessment of personality structure a standardized test battery (Freiburg's Personality Questionnaire/ Das Freiburger Persönlichkeitsinventar – FPI, Profile Index of Emotions – PIE, Life Style Questionnaire - OM) is used to assess personality profile, emotional profile and subject's defense orientation. Statistical processing is done in SPSS 10.01, and statistical methods used in this study include *t*-test, Pearson's correlation test (*p*), Chi-square test. It is undoubtedly shown that the level of respect of religious moral values is in positive correlation with ability to cope with stress as well with mental balance during adolescence.

### P198

Paroxetine efficacy and tolerability in treatment of PTSD

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**Objective:** To determine the efficacy of paroxetine in treatment of PTSD.

**Methods:** The sample consisted of 60 patients with symptoms of PTSD. All subjects received treatment with paroxetine in therapeutic

dose in the period of 6 months. All subjects were assessed prior to therapy and following 6 months of treatment with paroxetine with the use of following instruments: SCL 90-R for registration of psychological symptoms, Mississippi Questionnaire for PTSD and the questionnaire for registration of efficacy of paroxetine.

**Results:** The results indicate statistically significant reduction on all subscales of SCL 90-R following 6 months treatment with paroxetine,  $P < 0,05$ . The difference between two assessments with Mississippi Questionnaire for PTSD was statistically significant,  $P < 0,05$ . PTSD rate in our sample was reduced from 100% prior to treatment to 70% subsequent to treatment with paroxetine. Paroxetine was administered in daily doze of 20 mg in 80% of the subjects, and in the daily doze of 40 mg in the remaining 20% of subjects. Unwanted effects were registered in 10% of the subjects and they were of mild intensity. The remaining 90% of the subjects reported no unwanted effects. Objective improvement was registered in 85% of the sample, and subjective improvement was registered in 77% of the subjects. Reduction of relapse symptoms was registered in 38% of subjects.

**Conclusions:** Paroxetine proved to be very efficient, well tolerated and safe in treatment of symptoms of PTSD for the subjects in this study.

## P199

Socio-demographic characteristics of clients with PTSD who presented for treatment in the four countries of former Yugoslavia following the war and migration in the Balkans

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Report on the STOP-study, a multi-site study on treatment seeking and treatment outcome in people suffering from posttraumatic stress following war and migration in former Yugoslavia

**Objective:** To determine the socio-demographic characteristics of survivors who presented for treatment in therapeutic centers in the four Balkan countries involved in the study by summarizing the results of STOP study ("Treatment Seeking and Treatment Outcomes in People Suffering From PTSD Following the War and Migration in the Balkans"). STOP study was performed in the following countries: Bosnia and Herzegovina (specialized center Sarajevo), Croatia (centers in Zagreb and Rijeka), Serbia and Montenegro (center in Belgrade), Germany (center in Dresden) and United Kingdom (center in London). Summarizing the result of this study will provide conclusions about the socio-demographic characteristics of survivors who presented for treatment in the participating countries.

**Methods:** As a part of the STOP study, the authors applied a socio-demographic questionnaire and Mississippi Questionnaire among other instruments in clients with PTSD who presented for treatment in the centers.

**Results:** The authors present the differences among the four centers according to: gender, status (refugee, war veterans, refugee and war veteran, civilian), ethnic background, employment status, marital status, household monthly net income, and the number of days of sick leave that they have used.

**Conclusions:** Comparative statistical analysis of data obtained through interviews in four centers shows significant differences across the centers concerning socio-economic characteristics of the subjects.

Keywords: STOP study, Socio-demographic characteristics, PTSD, treatment seekers

## P200

To define factors of stressor in families with depressive member

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**Introduction:** Stress is the most common issue in people's daily life and it is Plague in modern century. That influenced lives of millions of people. The problem that attached people's mental and physical health at the same time, at this century advanced thecnology proceed very fast and causes people to be depressed and deprived, and people have conflicts and contrast that causes depression in family members.

**Methods:** This study is a single stage descriptive analytic case- control are performeal in mental clinics Isfahan. As control 170 healthy families and as case 70 families having a depressed member in referring to the mental clinics were selected by convenient method. The data were gathered by questionnaires including some family demographic characteristics in the first part a check list of stressful events in family in the second part were investigated in both case and control groups.

**Results:** The findings showed 47.5% of the subjects in control group had the least number of stressful events (1–2) while in study group 33% the of the subjects had the highest stressful events (3–4). On the whole, mean difference test (3.74 for study and 2.2 for control) showed a significant difference.

**Conclusion:** Regarding the findings suggesting that the association between environmental stressful factors such as death and other lacks, and depression. The findings also showed among 20 factors of stress, families with a depressed member experience higher stress than the others.

## P201

PTSD, depression and anxiety disorder among family residents in Bosnia and Herzegovina after war

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**Background:** During the 1992–1995-war conflict, people in Bosnia Herzegovina (BH) experienced a myriad of traumatic experiences together.

**Objectives:** The authors' goals were to determine the prevalence of PTSD, depression and anxiety disorder among Family Medicine residents in Bosnia and Herzegovina 9 years after war.

**Methods:** The Harvard Trauma Questionnaire, and Hopkins Symptom Checklist – 25 (HSCL-25) for anxiety and depression; Bosnia-Herzegovina version, were distributed to family medicine residents in BH 9 years after the war

**Results:** The sample consisted of 78 residents aged 30–45 years, (84.6% were females), who lived in B-H during the conflict years. Among residents 40 (51.3%) worked as physicians and 38 (48.7%) were Medicine schools' students.

The PTSD prevalence among respondents was 10.3% (16.7% for males, Chi-square = 0.633,  $P = 0.426$ ). The prevalences of depression and anxiety disorder were 21.8% (25.0% for males; Chi-square = 0.085,  $P = 0.770$ ; and 33.3% for males; Chi-square = 1.108,  $P = 0.293$  respectively).

Prevalence of PTSD and depression highly correlated (Spearman's  $\rho$  "rho" = 0.538,  $P < 0.001$ ) as well as with the prevalence of anxiety disorder (Spearman's  $\rho$  "rho" = 0.333,  $P = 0.003$ ). Prevalence of depression and anxiety disorder highly correlated too (Spearman's  $\rho$  "rho" = 0.624,  $P < 0.001$ ).

**Conclusion:** The Bosnia-Herzegovina Family medicine residents were exposed to war traumatization together with common population. They developed PTSD, depression and anxiety disorder which can interfere in their ability to treat properly traumatized patients. These results can be used for improving residential program of education from trauma psychology, to help future Family physicians to increase their professional competencies in treatment of traumatized BH population.

## P202

Religiosity as a factor of coping with stress during adolescence

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**Background:** Many authors agree that adolescence itself presents a stressful period of human life.

**Objective:** The aim of this paper is to determine the impact of religiosity on stress resistance during adolescence.

**Methodology:** The sample consists of 240 mentally and physically healthy male and female adolescents attending a high school, who are divided into groups equalized by sex (male and female), age (younger - 15, older - 18 years); school achievement (very good, average student); behavior (excellent, average); family structure (complete family with satisfactory family relations), and level of exposure to psycho-social stress (they were not exposed to a specific traumatizing events). Experimental group is made of subjects that are highly religious and practice their religiosity. Control group consists of subjects who have low level of religiosity, which is not practicing. For sample selection the measuring instruments were used to assess religious, moral and social profile of subject. For the assessment of personality structure a standardized psychometric tests (Freiburg's Personality Questionnaire/ Das Freiburger Persönlichkeitsinventar – FPI, Profile Index of Emotions – PIE, Life Style Questionnaire - OM) were used to assess personality profile, emotional profile and subject's defense orientation. Statistical data processing is done in SPSS 10.01 Program and statistical methods used in this study include *t*-test, Pearson's correlation test (*P*), Chi-square test.

**Results and conclusion:** It is undoubtedly shown that religiosity is in positive correlation with the ability to cope with stress and mental balance during adolescence.

## P203

Stressors of nurses of critical care units

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**Background:** Critical care units are the most sensitive professional units of hospital, and one of the stressors in nursing profession is working in these units. Observing dying patients, doing more work, communicational stressors and other environmental factors are the main stressors of these nurses. This study was performed to recognition stressors of nurses working in critical care units of Ardabil hospitals.

**Methods:** This is a descriptive study. The study population was the all of nurses working in critical units of Ardabil hospitals, contains 48 nurses and all of them were selected for the sample. The mean for collecting data was questionnaire.

**Results:** In this study 46% of nurses mentioned that new experiences in profession is the first stressor and not to being able for decision-making about living and dying of patients is the second.

**Conclusion:** Surely cognition of the stressors of nurses that working with patient directly can decrease potential problems and increase quality and quantity of nursing care.

**Keywords:** critical care unit; nurses; stressor.

## P204

Success rate and quality of CPR team practices

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**Background:** Multiple factors relate to cardiopulmonary resuscitation success that quality of providing services by resuscitation team in one of them and of course education and training of personnel for more knowledge and skills can make obvious differences in survival rate of patients, CPR successness and quality of personnel practice.

**Methods:** This is a descriptive study that aimed to determine success and practice of personnel for this reason 100 patients was chosen from emergency and cardiac care unit of Buali – alioasghar hospital of ardabil. The mean for collecting data was checklist.

**Results:** Results showed that success rate in patients was 15 percent and quality of practice in CPR team was good (98%).

**Conclusion:** This success rate is not congruent with quality of practice of CPR team and researchers recommend to determine practice of personnel in work with mannequines passwords: Cardiopulmonary resuscitation, CPR, successness, quality.

## P205

Psychogenic dyspnea and therapeutic chest radiograph

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**Background:** Conversion disorders are classically associated with abuse; however, any trauma can be the etiology. In one case series of pseudoseizures, 44% of referred children had severe family stress (death of close family member, parental discord, or divorce). Psychogenic thoracic pain can occur following death of a loved one. This case addresses psychogenic dyspnea in the context of multiple losses treated effectively with “therapeutic” chest radiograph (CXR).

**Method:** Case analysis with literature review.

**Results:** Between ages 6 and 8, a boy lost five significant family members. Cognitive, artistic, and emotional expressions of grief permitted normal bereavement. When age 9, he and his parents survived a near fatal motor vehicle accident. The front-seat passenger father was initially non-responsive, required jaws-of-life removal from the car, and thought death imminent (severe chest pains from fractured ribs); son and mother had minimal injuries. In the ER, he had physical examination without specialized tests; mother required CT abdomen; father required CXR. He went to bed breathing normally but then developed psychogenic dyspnea. The psychiatrist father asked his son: did he feel an inadequate ER examination was performed, was he afraid he had a fractured rib, was he concerned about potential death, and would a negative CXR enable him to breathe/sleep better. All questions were answered yes. He returned to the ER where a “therapeutic” CXR was negative. He has had no further breathing problems.

**Conclusion:** Perception of potential death (self or parent) may lead to conversion symptoms. “Therapeutic” CXR may be an effective treatment for psychogenic dyspnea.

**P206**

The psychological impact of a catastrophic earthquake: A retrospective study 50 years following the event

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**Objective:** On August 1953, an earthquake of 7.5R struck the island of Cephalonia in the Ionian Sea. 476 deaths and 4400 injuries were recorded; 91% of the buildings over the island were damaged. Aim of the present study was to assess the impact of this catastrophic event on the psychological well being in a sample of survivors, 50 years following the earthquake.

**Methods:** Hundred inhabitants who had survived the earthquake were contacted. The administered questionnaire included: a) personal socio-demographic data, b) information pertaining to the event c) questions concerning PTSD symptoms during the 6 months following the earthquake, d) questions regarding their current estimation of the impact of the event.

**Results:** Mean age of the responders was  $67.9 \pm 5.3$  years. 25% of the sample reported an injury of a relative and 75% material damages. Regarding the psychological symptoms, 88% reported automatic “reliving” of the event, 60% recurrent dreams, 77% experienced distress when exposed to circumstances resembling the event, and 72% avoidance behaviors. Non-parametric statistics showed that women and individuals who had suffered considerable material damages had considerably more often recurrent dreams ( $P < 0.001$ ,  $P = 0.04$ ) and distress ( $P = 0.006$ ,  $P = 0.02$ ). Finally, individuals older than 15 years at the time of earthquake reported that psychological repercussions of the event were more important than those of individuals of younger age ( $P < 0.001$ ).

**Conclusion:** The 1953 earthquake of Cephalonia had important psychological repercussions on the population. Women and adolescents of that time appear to be the most vulnerable demographic groups regarding the impact of the earthquake.

**P207**

The Posttraumatic Embitterment Disorder self-rating scale (PTED-scale)

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**Background:** The Posttraumatic Embitterment Disorder (PTED) is a special form of adjustment disorder. The present study describes the PTED-self rating scale (PTED Scale) which asks for major clinical and diagnostic features of PTED.

**Method:** The PTED Scale was administered to four independent samples, and the psychometric properties of the scale were investigated. Specifically, data on a principle component analysis of the scale, internal consistency, test-retest reliability, and convergent and discriminant validity are presented. In order to explore the prevalence of reactive embitterment the frequency of occurrence and the intensity of embitterment among clinical and non-clinical populations were analyzed.

**Results:** Internal consistency ( $\alpha = 0.93$ ) and test-retest reliability (spearman-rho-correlation = 0.71) were high. Factor analysis indicated a two factor solution, accounting for 55.25% of the total variance. The PTED Scale discriminated significantly ( $c^2 = 76.51$ ,  $P < 0.001$ ) between those with and without PTED. Significant correlations ( $P < 0.001$ ) with standardized instruments demonstrated good convergent validity. Data obtained

from a non-clinical sample indicated a prevalence of clinical relevant embitterment in the general population of 2.5%.

**Conclusions:** The PTED-scale is a reliable and valid measure for embitterment as an emotional reaction to a negative life event. In addition, the results demonstrate that reactive embitterment in connection to a negative life event is a prevalent phenomenon among clinical and non-clinical populations.

**Reference**

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**P208**

Women—victims of violence

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This study evaluates the functioning of a woman’s Police Unit, the social and economic profile of the couples involved in conjugal violence and the follow provide.

**Method:** One hundred and fifty-seven cases of aggression committed by husbands and registered at the Women’s Unit, Piracicaba São Paulo, Brazil, were studied. All information was obtained from cases registered between September and November 1997. The complaints, the personal data of victim and aggressor, the history of the occurrence which included information regarding the motive and Kind of aggression, the guidance given and the manner in which the case was conducted were found in the files.

**Results:** During the period studied, a great number of the cases registered involved young women: 79% were from the poorer classes and between the ages of 20 and 40 years; 49% were unemployed and 23% worked as housemaids: 57% of the men worked as specialized or non specialized manual worker (painters, bricklayers, electrician, motorist, etc.) which is a characteristic of the lower social classes. The aggression registered were physical violence with body lesions (64%), followed by threats of death (22%). However, only 5% of the women were going to prosecute the aggressors. Conclusion. Although the women’s police units are still deficient in preventing new aggressions, the act as screening units with regard to social, psychological and family problems and they are also slowly making women, more aware of their rights.

**P209**

Clinical environmental stressful events from the viewpoints of nursing students in Faculty of Nursing in Isfahan

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**Introduction:** People spend a major part of their time at work at which they are faced with frequent events that can be considered as stressful events by them. Occupational stress can cause tiredness and job dissatisfaction, which are the most popular consequence of occupational stress and can result in economical and social losses

**Materials and Methods:** This is a descriptive analytic study on 100 nursing students to define stressful events during nursing practice from their own viewpoints through questionnaires.

**Results:** The findings showed that 18% of the subjects were males while 82% were female students. There were 22% married students and 78% single ones. 31% were in term five of nursing and the stress mean score was 131 with S.D of 2.67. The lowest stress mean score was 55 and the highest as 179. The stressful events were mentioned as direct teachers’

indications to the students at the presence of patients and their volunteers, no match between nursing practice and students' marks, bad smell in the ward, communicable diseases, different learned theoretical subjects and clinical practice, shortage of enough clinical skills, administrating wrong medication, administrating procedures for the opposite sex, staffs' resentment toward students and exams overlapping with nursing practice.

**Discussion:** The mean stress among students has been higher from the average. There are numerous stressful occupational events, which can decrease job satisfaction and result in occupational tiredness.

## P210

The efficacy of vitamin B6 for treatment of premenstrual dysphoric

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**Introduction:** Premenstrual syndrome (premenstrual tension or late luteal phase dysphoric disorder) is a complex psychological & somatic symptoms that appear in the luteal phase of the menstrual cycle and remit by beginning of menses. It seems that at least 5% of childbearing women are suffering from this disorder.

**Objective:** To assess the efficacy of vitamin B6 for treatment of premenstrual dysphoric disorder a double-blind placebo controlled study was done.

**Method:** 121 women, aged 20–45 years, who had premenstrual dysphoric disorder, according to 4th. Edition of Diagnostic & Statistical Manual of Mental Disorders, entered in a randomized double-blind trial in Isfahan Sadr clinic. The subjects followed by the modified Moos Menstrual Distress.

Questionnaire (MMDQ) for 3 months. Data analyzed by SPSS software using paired and Student's t-test.

**Results:** In the 94 cases who completed the study, a significant superior effect of vitamin B6 was observed than placebo on emotional (but not somatic) symptoms of premenstrual dysphoric disorder.

**Conclusion:** It seems that vitamin B6 is an effective drug for relief of at least some of the symptoms of the premenstrual syndrome.

## P211

Staff's perceived health and stress levels in a closing psychiatric hospital

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**Objective:** The study of perceived somatic or mental health and stress levels of a closing Public Psychiatric Hospital's staff in Greece.

**Material and methods:** A questionnaire specially made for the purpose of this study was anonymously completed by the working staff.

**Results:** In general, stress levels reported were high; financial matters seemed to preoccupy staff the most, personal affairs the least. In view of the deinstitutionalization, the staff were reassured about retaining their jobs, thus work stress was medium. Women were more stressed in general, [ $t(155) = 2.11, P = 0.029$ ] and specifically regarding family [ $t(155) = 3.42, P = 0.001$ ] or work [ $t(155) = 2.4, P = 0.017$ ] issues. 41.3% of the staff admitted having visited a physician but only 5.3% a psychologist or psychiatrist during the previous semester. Their health concerns were reported to relate to their anxiety, but did not restrict their social lives. Women were often stressed [ $t(152) = 2.63, P = 0.009$ ] or sad [ $t(152) = 2.67, P = 0.009$ ] due to health problems, even though they didn't report more frequent visits to health facilities. Finally, job type, age or years in service did not significantly affect the measured variables.

**Conclusions:** The deinstitutionalization of a Psychiatric Hospital does not seem to overly stress or negatively affect the health of its staff, as long as their professional stability is ensured.

## P212

Psychodermatology in children: a study at Pendeli Children's Hospital in Greece

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Previous research has shown that there is a close relationship between some dermatological symptoms and psychological problems. Psychological personality factors (such as anxiety, anger, depressive mood) and stressful life events that occur in children's life (parent's divorce, death, illness etc) can cause psychosomatic symptoms and especially psychodermatological problems such as neurodermatitis, trichotillomania, onychomania, alopecia areata etc.

The aim of this study is to examine the hypothesis of this relationship's validity. Psychological factors are evaluated by personality- and projective tests such as Achenbach for parents, Beck for children, patte-noire and family drawing tests. Stressful life events are evaluated during the interview with parents and child and through a specific questionnaire designed for this purpose.

The study involves 30 children whose psychological profiles are presented.

It was found that half of the children present personality factors such as anxiety, depression and aggressiveness.

We also found that almost all the children had experienced a very stressful life event, before the emergence of the dermatological symptom.

## P213

Recent Japanese trends of occupational outpatients at psychiatry

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**Aim:** To reveal new trends of Japanese outpatients having jobs

**Method:** Retrospective approach to clinical records at IMCJ for 1 year.

**Result:** Many 20s–30s workers went to our department of outpatients at Psychiatry of IMCJ. Most of their diagnosis are adaptation disorders. They came our department voluntarily or introduced by other departments or family, not by their comrades or boss or occupational doctors. Most of them could return to their job but about 10% could not help retiring. A few workers had suspensions but most of them can return to their workplace.

## P214

Are personality dimensions important for developing burnout syndrome?

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**Background and aims:** Burnout syndrome and stress-related illnesses are increasing among medical specialists. It has been suggested that some health workers have personality characteristics that make them more prone to the burnout. The aim of this study was to assess

correlation between intensity of the burnout syndrome and physicians' personality dimensions.

**Methods:** The sample consists of 120 doctors (60 psychiatrists and 60 general practitioners). The following questionnaires were applied: Maslach Burnout Inventory, The Temperament and Character Inventory (TCI).

**Results:** Burnout syndrome was rather high in both examined groups, with the higher intensity in psychiatrists. It was related to personality dimensions. There was statistically significant correlation between burnout syndrome and the following personality dimensions: harm avoidance (positive), self-directedness (negative) and cooperativeness (negative).

**Conclusions:** Since the burnout syndrome affects personal well-being and professional performance it is important to undertake preventive measures against its development, such as strategies focused on individual and organization.

## P215

Terrorism and refugees' mental health

H.T. Popov. *Department of Psychiatry, Medical University, Sofia, Bulgaria*

Globally, contemporary terrorism and armed conflicts produce mass displacement of people because most casualties are civilians, and fighting occurs predominantly in and around communities. The mental health and well-being of these people are at risk in different phases of their displacement. In their homes and communities, they may have been exposed to attack, fear of death, torture, and genocidal practices such as ethnic cleansing. In flight, they may have experienced loss, gender-based violence, attack, exposure to landmines, separation from loved ones, and uncertainty about their future. In resettlement, they may have experienced discrimination, poverty, loss of social status and means of livelihood, separation from family and cultural supports, and difficult living conditions in camps or resettlement areas. Psychiatry offers a variety of intervention tools for assisting refugees and displaced people. Counseling, critical incident debriefing, and related clinical tools have been used widely. In some host countries with extensive psychiatric resources, these tools are also used in acute, emergency contexts. In large-scale emergencies, teams of such professionals provide direct counseling to displaced people, often operating out of a tent or a health post. Nevertheless, it is not enough. Psychiatrists can do their share in comprehensive terrorism prevention by sustainable application of the holistic approach. Continuing this theme, psychiatrists can urge policy makers to coordinate psychosocial assistance with political and economic reforms. Such changes could decrease powerlessness and desperation, increase power-sharing, meet basic needs of refugees and displaced people and promote their mental health.

## P216

Disaster psychiatry: challenges and responses

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A wide host of traumatic events and natural as well as man-made disasters have dramatically become part of everyday life. The term "disaster psychiatry" has been coined to describe an epidemiological approach to understanding and treating the effects of mass casualty situations. Disaster psychiatry entails a number of paradigm shifts for psychiatrists involved in clinical practice. The first major paradigm shift involves a professional's focus on health rather than disease. In

disaster situations, the vast majority of people will experience transient psychological and behavioral symptoms that represent normal responses to an abnormal event. In disaster settings, then, care is given to avoid the use of diagnostic labels prematurely. In the acute phase, the psychiatrist primarily educates and facilitates the natural recovery process than treating pathology. The final major departure from one's usual practice in the acute phase of a disaster is that one leaves the office. In disaster psychiatry, outreach is key. The overarching goal is to facilitate normal recovery processes and prevent or diminish psychiatric morbidity. The psychiatrist practices primary prevention, often through consultation to primary care providers and disaster agencies, reducing the number of individuals who will develop mental disorders. Although sounding a bit utopian, adequate and successful putting into practice of disaster psychiatry can contribute to achieving one of contemporary mankind's major goals – protection and promotion of both mental and physical health as well as well-being not only of the particular individual but of society as a whole.

## P217

Post-traumatic stress: an integrative model of adaptation

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It would seem that although post-traumatic stress reactions arise as a direct result of exposure to the experience of a traumatic event, the chronicity and severity of reactions are also a function of other psychosocial factors. In particular, the person's appraisal of his or her experiences, the support received from others, and the life-events experienced subsequent to disaster may all exacerbate symptoms. For this reason, an integrative model of adaptation to traumatic stressors has been adopted which emphasises that post-traumatic stress reactions are indicative that experience has in some way not yet been assimilated. It is important that mental health professionals should have a thorough knowledge of the main research findings and are familiar with those signs of incomplete emotional processing which may indicate risk of later disorder. It should then be possible for victims at high risk to be identified in the early stages and given help to work through and assimilate their experiences.

## P218

Mobbing among medical doctors: cross sectional questionnaire study

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**Background and aims:** Workplace mobbing is associated with stress, depression and intention to leave. The aim of this study is examination of extent of mobbing among group of Bosnia and Herzegovina medical doctors ( $N = 511$ ), correlation between frequency of mobbing behaviours and amount of stress, and its potential effects on staff mental health and intention to leave.

**Methods:** A choice of questionnaires provide monitoring of mobbing behaviours, symptoms and signs of influences mobbing to mental health and intention to leave (Questionnaires about mobbing; Maslach Burnout Inventory).

**Results:** Seventh six percent of doctors (387 out of 511) were suffering mobbing. There was a strong correlation between frequency of mobbing and level of stress ( $r = 0.139$ ,  $P > 0.01$ ). Medical doctors who were rarely mobbing victims were not distressed. Medical doctors who were not mobbing victims, they have not depression. There was

significant prevalence of doctors who were mobbing victims and have Burnout and intention to leave in relationship to doctors who were not mobbing victims. Most of negative behaviours and mobbing threat were perpetuated by other doctors.

**Conclusion:** Mobbing is a great risk at workplace among medical doctors and a global, serious problem.

## P219

Differences in personality traits in cardiosurgical patients with and without diabetes mellitus—indications for psychotherapy

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**Background:** Diabetes mellitus is a serious risk factor in the onset and the progress of a cardiovascular disease. The more we know and are capable to establish differences in the personality traits in this target group the more effective we will be in coping with them.

**Methods:** From 60 cardiosurgical patients, chosen randomly, two groups have been formed numbering 30 subjects each, with and without diabetes. Personality profiles are designed after the administration of EPI (Emotions Profile Index), 1 day before surgery.

**Results:** The qualitative analysis and comparison of the two profiles show differences in several dimensions: diabetics compared to nondiabetics show tendency of higher aggressiveness, noncontrollableness and opposition; the trait of self-protection has lower presence.

**Conclusion:** The fact that diabetes is a frequent comorbidity to the cardiovascular diseases, it is important to be worked with the healthy systems of acceptance that provides prevention from a vital endangering and active self-care. Not being always almighty to make changes, we can largely contribute to the patient's health by helping him learn to face what he is suffering from, without endangering himself vitally.

## P220

Perceived stress, satisfaction and mental health in the workplace: the case of hospital consultants in UK

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**Background and aim:** Due to frequent changes in the National Health Service in the UK, the medical profession has found itself increasingly under pressure. Whilst research has been carried out on stress among junior doctors and general practitioners, little is known about stress experienced by hospital consultants.

The aim of this study was to identify sources of stress, job satisfaction and mental health among consultants in UK.

**Methods:** Both qualitative and quantitative methods were employed in this research. Twenty consultants were interviewed and a stressors questionnaire was constructed. A package of questionnaires containing job satisfaction, mental health and the stressors items was distributed to 220 consultants. Hundred and nine questionnaires were analysed by using SPSS.

**Results:** The top stressors identified were: time pressure, NHS changes, lack of resources, conflict with management, unpredictable demands, increased expectations from patients and factors not under their control. The consultants were least satisfied with their hours of work, rate of pay and the recognition they get for their work. They were most satisfied with the clinical aspects of their jobs rather than administration. When their mental health was compared with junior doctors it was found that consultants had better mental health.

**Conclusions:** This finding suggests that stress management programmes for consultants and other health care professionals need to be initiated and evaluated. There may be substantial benefit in initiating a support network for consultants.

## P221

Personality and stress in Norwegian physicians. A 9-year follow-up study

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**Background and aims:** Research on the importance of personality in physician stress is scarce. Job stress was explored in three phases of the physician's career, with personality as predictor.

**Method:** Prospective mailed survey of a nationwide cohort of all the physicians that graduated in Norway 1993/94. Approached at internship (T1), 4 years later during specialisation (T2) and in established jobs in their 10th postgraduate year (T3). Neuroticism, extraversion, and conscientiousness were measured at T1 with the Basic Character Inventory (Torgersen). Using median splits on the dimensions, eight types were constructed with unique combinations of high and low scores. Job stress was measured with the Cooper Job Stress Questionnaire at T1, T2 and T3.

**Results:** Personality types high on neuroticism and extraversion (complicated and impulsive) and types combining high neuroticism with low extraversion and high conscientiousness (brooders) reported more stress than the others in internship, whereas types low on neuroticism and extraversion combined with low conscientiousness reported lower stress than the others. Four years later the brooders and impulsive were still more stressed than the others. Explained variance from personality types was 15% in internship, decreasing with time.

**Conclusions:** Personality typology is useful in identifying stress-prone groups, in preparing interventional efforts.

## P222

Nonspecific psychological distress predicts increased healthcare utilization and expenditures in linked United States epidemiological surveys

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**Background and aims:** Psychosocial stress has long been suspected to increase healthcare utilization and expenditures. Psychological distress represents the impact of unresolved psychosocial stress on human functioning. We compared scores on the 6-item Kessler Psychological Distress Scale (K6) to annual healthcare utilization and expenditures in two linked epidemiological surveys of United States households.

**Methods:** The study analyzed 11,265 adults who completed the K6 during the 2000 or 2001 National Health Interview Survey (NHIS) and also participated in the Medical Expenditure Panel Survey (MEPS) during 2002. Zero-inflated negative binomial regression models compared K6 scores with medical office visits, prescription fills, and hospitalizations, controlling for demographics, body mass index (BMI), diabetes, coronary heart disease, or asthma.

**Results:** Respondents were 58.5% female, mean age 48.7 years (SD 17.5 years), with mean BMI of 27.5 (SD 6.0). They reported 6.5

(SD 12.0) office visits and 14.3 (SD 23.4) prescription fills during 2002; 10.4% had at least one hospitalization. A one-SD increase in K6 predicted higher odds of office visits (OR = 1.26,  $P = 0.0024$ ), prescriptions (OR = 1.27,  $P < 0.0001$ ), and hospitalizations (OR = 1.12,  $P = 0.0122$ ). Among healthcare users, a one-SD increase in K6 predicted increased office visits (1.0 visits, \$128.77 USD,  $P < 0.0001$ ) and prescriptions (2.9 fills, \$159.84 USD,  $P < 0.0001$ ), but not hospitalization days (0.4 days,  $P = 0.5197$ ).

**Conclusions:** Psychosocial stress predicts higher utilization and expenditures over and above major medical conditions and BMI. Stress increases office visits and prescription use more than hospitalizations.

## P223

Burnout literacy among mental health professionals: consequences for early detection and help-seeking

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**Background and aims:** Work in psychiatry can be strenuous—both in terms of caseload and the kind of work. Health care reforms have increased the pressure even further, amplifying the risk of burnout. Burnout research has been criticized for neglecting the perspective of those potentially at risk. This study aims to assess mental health professionals' burnout literacy and recommendations for burnout management.

**Method:** Focus groups were carried out with mental health professionals ( $n = 191$ ) from different settings as well as professional groups, addressing participants' definitions of burnout and recommendations for treatment. Group sessions were audio-taped, transcribed, and analysed by means of a qualitative procedure, using the software package MAXqda2.

**Results:** Mental health professionals are well-informed about burnout. They perceive burnout as a multidimensional syndrome that affects professionals' mental and physical health, job motivation, job performance as well as their relationship with their clients, and propose multiple intervention strategies, ranging from talking to colleagues through reducing caseload to seeking professional help. However, two major obstacles are described in translating knowledge and treatment recommendations into practice: burnout (1) goes undetected for a long time and (2) has a stigma attached to it.

**Conclusions:** While mental health professionals' burnout literacy is high, the social perception of burnout poses a serious barrier to early detection and treatment. Interventions to prevent burnout must go beyond enhancing the burnout literacy of those potentially at risk. Most importantly, burnout needs to be de-stigmatised, and organisations have to recognise burnout prevention as an intrinsic goal.

## P224

Neurotism of children whose parents show symptoms of posttraumatic stress disorder

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**Aim:** Neurotisation level analysis of children whose parents show symptoms of posttraumatic stress disorder.

**Subjects and methods:** It has been analyzed group made of 100 children school age (10–15 years) from two randomly chosen schools. There were chosen children that are coming from complete families and whose parents agreed to be questioned on psychometric test on war

trauma. Group was divided in group of children ( $N = 50$ ) whose parents show symptoms of PTSD (Experimental group) and group of children ( $N = 50$ ) whose parents do not show symptoms of PTSD (Control group). Estimation of PTSD symptoms and traumatization was performed applying Hamburg neurotism scale-HANES. Concern sex and number of fathers and mothers, sample was homogenous. Results were analyzed applying descriptive statistics.

**Results:** Mean score of neurotic symptoms was within normal values. Children from the group whose parents show symptoms of PTSD, show statistically significantly higher level of neurotic symptoms ( $P < 0.001$ ). Boys show more introverted characteristics with more expressed socially passive behaviour comparing with girls which show a bit more extroverted behaviour ( $P < 0.05$ ).

**Conclusion:** on the basis of results it was found that children of parents with PTSD show significantly higher level of neurotism.

## P225

PTSD and depression of Bosnian school age orphans in institutional and noninstitutional care

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**Background and aims:** To estimate the prevalence of Posttraumatic Stress Disorder (PTSD) and Depression of school age children, with parent/s deprivation after the 1992-1995 war in Bosnia and Herzegovina.

**Methods:** The sample of 138 pupils (69 females) aged of  $12.7 \pm 1.6$  years were evaluated for prevalence of PTSD and Depression. The sample was divided into three groups: participants who live as orphans in an orphanage ( $n = 38$ ), participants who lost a parent but live in original families ( $n = 50$ ) and control group of participants who have both parents ( $n = 50$ ).

**Results:** The prevalence of PTSD differed between those who lost one parent and live in own family 24/50 (48.0%) and group of children who have both parents 13/50 (26%) (Chi-square = 5.191;  $df = 1$ ;  $P = 0.023$ ). The prevalence of Depression differed between orphans from orphanage 11/38 (28.9%) and group of children who have both parents 6/50 (12%) (Chi-square = 3.979;  $df = 1$ ;  $P = 0.046$ ). Severity of depressive symptoms directly correlated to the severity of PTSD symptoms (Pearson's  $r = 0.237$ ;  $P = 0.005$ ).

**Conclusions:** The highest rate of PTSD developed children who lost one parent and live in original family, while orphans from orphanage developed the highest rate of Depression. Children who have both parents were better protected of psychopathological responses after war trauma than parent/s deprived children.

## P226

History of trauma is associated with seclusion and restraint in inpatients with schizophrenia

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**Background:** Lifetime prevalence of both severe traumatic events and posttraumatic stress disorder (PTSD) is higher in people with schizophrenia than in the general population. We compared treatment outcome in inpatients with schizophrenic disorders with and without a history of trauma (HOT).

**Method:** Consecutively admitted patients with schizophrenic disorders ((ICD-10 F2) were interviewed with the Posttraumatic Diagnostic Scale. Outcome data (PANSS, GAF, length of stay) and adverse events during treatment (suicide attempts, seclusion, restraint) were recorded prospectively.

**Results:** One hundred and seventy-three subjects were screened, 118 subjects could be included (informed consent). No substantial differences were found between included and not included subjects. A lifetime HOT was reported by 58 subjects (49.2%). Subjects with and without a HOT did not differ with respect to age, gender, length of stay, number of previous admissions, GAF and PANSS at admission and discharge, and suicide attempts. However, a history of seclusion and restraint (including present admission) was found in 16.6% of the individuals without HOT and 56.1% of those with a HOT ( $P < 0.0001$ ).

**Conclusions:** Prevalence of lifetime traumatic experiences was considerably lower than in available studies from the U.S. No evidence was found for an association of HOT with more severe symptoms or worse outcome at discharge. However, there was a strong association between HOT and clinical interventions of seclusion and restraint. We suggest that traumatic experiences can be re-actualized during inpatient treatment and may lead to an unhappy circle of adverse experiences of compulsion and re-traumatization.

## P227

Psychopathologic, psychologic and psychotherapeutic aspects of virgogamia

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**Objective:** Full research in investigation the neurotic disorders in patients with virgogamia, and construction the strategy in treatment actions.

**Methods:** In ambulance conditions 206 patients with neurotic disorders (99–48.1% males and 107–51.9% females) in virgogamia were investigated, from 1998 to 2005.

**Results:** During the research for the first time the imaginations about clinic-pathogenesis virgogamia were widened. for the first time the complex investigation of clinic- psychopathologic, psychological, social, hormonal and of vegetative level of patients with virgogamia was made. The psycho traumatic factors, which are components of neurotic disorders, and proximate reasons of couples disharmony were marked, and this brings to neurotic misbalance; the specification of sexual disorders in patients with virgogamia was investigated, the psychological behavior and psycho vegetative dysfunctions were

studied in patients with virgogamia; diagnostic meaning of neurotic disorders were investigated and several clinical syndromes which effects on virgogamia were chosen; the personal-specialties of patients with virgogamia were investigated. The principle of psychotherapy of neurotic disorders were offered and the recommendations of their corrections were made.

**Conclusions:** The research helps us show the diagnostic level of neurotic disorders of psychic in virgogamia. The recommendations on deferential psychotherapy effects on effect of treatment of virgogamia. The modern investigation and treatment of virgogamia can serve as a prophylactic of nervous and nervous conditions among the population of our republic. Vegetative vasomotor reactions effects badly on sexual nervous. The high efficiency of Fluvoxamin and Atarax is shown at psycho vegetative disorders in couples with virgogamia.

## P228

The effects of therapeutic touch on anxiety and cardiac dysrhythmia in cardiac catheterization clients

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This research is a quasi-experimental study that was performed in a Tehran hospital. The purpose of this study was to determine the effect of therapeutic touch on anxiety, vital signs and cardiac dysrhythmia in cardiac catheterization female clients. The non-random sample consisted of 71 subjects, that case 3 was omitted for some reason. 68 clients were randomly assigned to: experimental (26), placebo (21) and control group (21). Experimental group received therapeutic touch for 10–15 min (1 hour before catheterization). Placebo group received mimic therapeutic touch (without centering or intent to help) and control group did not receive any therapy.

Basic data collected by Spielberger anxiety test, check list of cardiac dysrhythmia and paper of record vital signs before and during catheterization.

Analysis of data was computerized adopting SPSS package software.

**Results:** Finding of this study indicated: therapeutic touch caused a reduction in the state of anxiety ( $P = 0.000$ ), no effect on trait anxiety. In addition, therapeutic touch was effective on systolic blood pressure ( $P = 0.002$ ), pulse rate ( $P = 0.000$ ) and respiratory rate ( $P = 0.0014$ ) during catheterization and effective on cardiac dysrhythmia only on sinus tachycardia ( $P = 0.005$ ).

**Conclusions:** Results suggest this method is effective on anxiety in stressful situations.