

**P56.02**

Randomized controlled trial of internet-based treatment of insomnia

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This study investigated the effectiveness of an Internet-based intervention for people with insomnia. Participants who met the criteria for insomnia (N=109) were randomly assigned to either a cognitive behavioral self-help treatment or to a waiting-list control condition. Participants self-monitored their sleep for two weeks prior to the five week treatment program, and then registered for another 2-week period. Treatment consisted of sleep restriction, stimulus control strategies and cognitive restructuring. The drop-out rate was 24%. Results showed statistically significant improvements on total sleep time, total wake time and sleep efficiency. A subsample provided follow-up data for 9 months following treatment showing that the results were maintained. These results suggest that Internet-based self-help can serve as an important treatment option in the management of insomnia.

**P57. Transcranial magnetic stimulation (TMS)****P57.01**

Combining 1-Hz and 10-Hz rTMS in the treatment of depressives

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**Objective:** The aim of this pilot study was to investigate the augmentation properties of rTMS combining low and high frequencies.

**Method:** 36 depressed medicated in-patients were recruited and assigned to 3 different treatment modalities (each n=12). In group 1 we used the stimulus intensity of 110% of the motor threshold (MT) and the frequency of 10 Hz over the left dorsolateral prefrontal cortex (DLPC), over the right DLPC 110% MT and 1 Hz. In group 2 only the left DLPC was stimulated at 110% of MT and 10 Hz alternating with 110% MT at 1 Hz. In group 3 the standard stimulation over the left DLPC was performed.

**Results:** None of the treatment modalities was superior but different side effects were observed.

**Conclusion:** These preliminary findings suggest that rTMS at varying frequencies and stimulation placements exhibits different psychoactive properties of clinical relevance.

**P57.02**

Dynamics of vegetative regulation in transcranial magnetic stimulation of depressed patients

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**Objectives:** Transcranial magnetic stimulation (TMS) has recently been suggested to be effective for the treatment of depressive disorders. The investigation has established a relationship between the effect of therapy and vegetative regulation.

**Methods:** 20 patients according to ICD-10 criteria of major depressive episode were observed. All patients were examined with heart rate variability (HRV) ECG before and after treatment. The ECG parameters of spectrogram: VLF (Very Low Frequency), LF (Low Frequency), HF (High Frequency) reflect the influence of para- and sympathetic regulation on cardiac rhythm. Stimulation

occurred over the right dorsolateral prefrontal cortex. The subjects received everyday 20 ms 1 Hz stimulation 1,6TL intensity from 8 cm diameter coil over 30 minutes (10 sessions per treatment phase).

**Results:** At the end of the study all patients had no essential changes in ECG data. There was some increasing of sympathetic and reducing of parasympathetic activity after TMS course. Under the influence of TMS spectrogram parameters were especially changeable in respondents.

**Conclusions:** The results of the study did not reveal toxic effects of impulse magnetic stimulation on vegetative characteristics. These results suggest that some baseline ECG-indexes can be used as predictors of response to TMS therapy.

(1) Krystal AD, West M, Prado R. et al. EEG effects of ECT: implications for rTMS. [Review] // *Depression & Anxiety*, 2000, 12 (3): 157-65.

(2) Warner A.K., Mehndiratta Y.P., Balish M.S. et al. EEG changes associated with repetitive transcranial magnetic stimulation (rTMS) as used in the treatment of refractory depression. // *Neurology*. 2000; 54 (7-3): P03.101.

**P58. Transcultural psychiatry****P58.01**

Accessibility of drug treatment institutions for migrants in Germany

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**Objectives:** While drug and alcohol problems are pronounced in immigrant populations, their utilization rate of treatment facilities is low. We examined the legal and cultural factors that reduce accessibility of drug treatment, units for immigrants in Germany.

**Methods:** Structured qualitative interviews were conducted with 35 Turkish opiate-dependent patients and health care professional and explanatory models of addiction were examined among 144 German and Turkish youths with free listings and pile sorts. Furthermore, we conducted a literature search on the topic.

**Results:** Main reasons for the reduced utilization of drug treatment facilities were language barriers, previous experience with discrimination and fear of losing the legal right to stay in the country. Unlike German youth, Turkish subjects defined alcohol and nicotine as dangerous drugs and rejected terms such as "physical dependence" or "reduced control of drug intake" as inadequate to describe addictive behaviours. Only German subjects ranked anorexia and bulimia among the addictive disorders.

**Conclusion:** Problems of language and legal status and differences in the classification and description of addictive behaviour restrict migrants' access to the German drug treatment system.

**P58.02**

Psychiatric services to traumatized populations

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With increasing number of refugees or traumatized immigrants/internally displaced persons, presenting themselves for care the need to analyse available services becomes more urgent.

There has been a focus on specialized comprehensive rehabilitative services for such populations. Alternative possibilities

comprise community based services; mainstreaming with already existing mental health services; networking or establishment of self-help groups.

An overview will be provided outlining critically advantages and disadvantages of the different approaches in order to develop recommendations for future services.

### P58.03

Ethnic classification in psychiatric research: are human beings colour-coded?

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Race and ethnicity are commonly used in medical research to categorise population groups and are usually dichotomised in statistical analysis. However, the subjective and fluid nature of ethnicity makes it difficult to define and measure. Psychiatric research, while focussing on ethnic differences in disease rates, service utilisation etc, has paid little attention to the accuracy and precision of the terms used to delineate different ethnic groups. It has even been argued that science should be 'colour blind'. However, epidemiology is by definition, the study of disease in populations. Variations in rates of disease across and within population groups provide important aetiological clues to our understanding of diseases. In attempts to isolate causative factors in epidemiological research, almost any chosen population group is defined by composite proxy variables, which are heavily confounded. Epidemiological research should endeavour to 'unpack' these, to isolate the underlying shared biological, cultural and social influences of aetiological importance. This lecture reviews the use of ethnicity as a variable in recent psychiatric literature and proposes a series of guiding principles to rectify some methodological limitations in defining ethnicity.

### P58.04

Anxiety disorders related with the acculturation stress

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**Objectives:** To describe possible indicators of risk for anxiety among immigrant adolescents of the Third World in Granada (Spain).

**Methods:** 36 adolescents of the third world (22 women and 14 men) with ages among 13 and 18 years, and 25 controls, were studied. To them were applied the survey HAD and Hamilton, to determine symptoms of anxiety and depression, demographic and social variables were determined, and an interview structured was made by a specialist.

**Results:** More than 60% of the immigrant adolescents they had high levels of anxiety, related mainly with the origin country, the school degree, and the degree of irregular situation. There were not significant differences in the case of the depressive symptoms.

**Conclusion:** The results suggest that the immigrant adolescents with low school level, irregular situation, and of different culture (religion or language) can have bigger risk to present dysfunctions of anxiety.

### P58.05

Abuse of alcohol and criminal behaviors in immigrants: a review

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The present study is a reflection from the point of view of the transcultural psychiatry of the possible existent relationship among the alcoholism in the immigrants and the genesis of violent and aggressive behaviors, associated to previous psychiatric comorbidity (type disorder of personality); taking like base statistical data of organisms: sanitariums, judicial and of social support to the immigrant.

- (1) Guardia J. Genetic epidemiology and factors of risk in alcoholism. In: Psychopathology and alcoholism (Casas, Gutiérrez M, San L; eds.). Ediciones en neurociencias, Barcelona. 1994.
- (2) Blanco C. The contemporary migrations. Alianza Editorial. Madrid. 2000.

### Late poster

#### LP01

Schizophrenia as a systemic disorder – studies of peripheral and central biological functions

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Psychiatric disturbances with an onset in adulthood may show subtle signs in childhood and school age. A plasma membrane disturbance has been proposed as a common denominator responsible for both the central nervous system abnormalities in patients with schizophrenia (1). The aim of the present thesis was to investigate central (neuropsychological, neurological and psychomotor) and peripheral (neuromuscular, tyrosine transport across the cell membrane) functions in schizophrenia with tyrosine transport kinetics as an indicator of membrane function.

Patients with schizophrenia (n=39) exhibited neurological abnormalities and aberrant psychomotor performance to a significantly greater extent than healthy controls (n=55). Neuromuscular changes were found more often in patients with schizophrenia compared to controls. The patients exhibited aberrant tyrosine transport kinetics with significantly lower Vmax (indicating lower tyrosine transport) and Km (indicating higher affinity) compared to controls (2). Finally, the patients performed significantly worse than the controls in most of the neuropsychological tests.

In conclusion, the findings of central and peripheral abnormalities in patients with schizophrenia indicate that schizophrenia is a systemic, and not only a brain disease. The results, especially the tyrosine transport findings, indicate a disturbance on the level of the cell, possibly the cell membrane, in patients with schizophrenia.

- (1) Horrobin DF, Glen AI, Vaddadi K. *The membrane hypothesis of schizophrenia*. Schizophr Res, 1994. 13(3): p. 195-207.
- (2) Flyckt L, Venizelos N, Edman G, Bjerkenstedt L, Hagenfeldt L, Wiesel F.-A. *Aberrant tyrosine transport across the cell membrane in patients with schizophrenia*. Archives of General Psychiatry, 2001;58:953-958.