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Abstracts for oral sessions

PL04. Presidential symposium: ethical issues concerning the treatment of mental disorders

PL04.01

Conflict of interest and clinical trials with psychotropic drugs

G.A. Fava. *Clinical Psychology, Department of Psychology, University of Bologna, Bologna, Italy*

Conflict of interest in science has emerged as a major issue of concern in the past decade. The credibility of clinical medicine (including psychiatry) has come to an unprecedented crisis, due to the proliferation of connections between physicians and pharmaceutical industry. Studies sponsored by pharmaceutical companies are more likely to have outcomes favorable to the sponsor, to entail restrictions on publication and data sharing, and result in selective reporting. Further, most of the negative trials concerned with psychotropic drugs do not get published.

Investigators conducting a clinical trial in psychopharmacology are thus confronted with major ethical issues related to conflict of interest. Similar considerations apply to the researchers performing meta-analyses or literature reviews.

Suggestions for decreasing the bias derived from conflict of interest in clinical psychopharmacology and for developing ethical guidelines for investigators will be discussed.

PL04.02

Ethical issues in community psychiatry

G. Thornicroft. *Institute of Psychiatry, King's College, London, UK*

The practice of psychiatry both within and outside hospitals is in many ways ethically problematic. This talk will address the following issues:

- The arguments for and against compulsory treatment powers in community settings (sometimes referred to as 'out-patient commitment' or 'community treatment order'.
- The evidence that patients treated on a 'voluntary' basis in fact understand that they are under de facto compulsion.
- The range of persuasion,,\leverage, inducement, threat and coercion that is used within psychiatric practice in hospital and in community settings.
- The range of ethical principles that have been agreed in some countries to provide a framework to safeguard the human rights of psychiatric patients [1–4].

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PL04.03

Ethical issues in outreach treatment

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Objective: To discuss ethical issues related to assertive outreach.

Methods: A review of studies of user satisfaction in outreach programmes was carried out. Included in the review was the Cochrane review of Assertive Outreach for Those with Severe Mental Disorder (Marshall and Lockwood, Cochrane Library) and the 1- and 2-year results of the OPUS-trial (Petersen et al., BMJ, 2005) comparing integrated treatment or standard treatment.

Results: A striking finding in both the Cochrane review and the OPUS trial is that patients in the assertive treatment were much more satisfied with treatment. The same result, but even stronger, was found for the relatives. This indicates that in most cases there is no violation of patient's autonomy.

Conclusion: Patients in assertive outreach programmes are more satisfied with treatment than patients in programmes without such approach. This means that in most cases patient's autonomy is not violated by assertive outreach programmes. However, in some cases the assertive programmes exert paternalistic measures such as not respecting the patients expressed wish to stop the treatment or to arrange involuntary admission more effectively. These are examples of so-called weak paternalism. Weak and strong paternalism will be discussed.

PL04.04

Ethical issues in psychotherapy

U. Schnyder. *Department of Psychiatry, University Hospital, Zurich, Switzerland*

When performing psychotherapy, psychiatrists may encounter challenges regarding the following four basic ethical principles: respect for the

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patient's autonomy, beneficence, nonmaleficence, and justice. In balancing these principles, and applying them to an individual problem during psychotherapeutic treatment, the consequences to the patient and to others of different courses of action will have to be examined (utilitarian reasoning); comparing the problem with other, apparently similar problems may be another way of finding a solution; finally, in certain situations, absolute rules will be applied, e.g. the rule that therapists shall not exploit patients sexually or in other ways. A number of frequently occurring specific issues will be discussed: confidentiality and its possible exceptions, conflicts of interest, and consent to treatment. In addition, problems that arise specifically from the psychotherapeutic treatment setting will be addressed, such as imposing values in psychotherapy, sexual and non-sexual boundary violations. Ethical issues must be dealt with transparently throughout the psychotherapist's professional career. Awareness regarding ethical issues should be raised in psychiatric residents and psychotherapy trainees right from the beginning of their training.

PL04.05

Ethical issues in psychopharmacotherapy

H.-J. Möller. *Munich, Germany*

This presentation deals with selected ethical aspects in relation to pharmacopsychiatry. In particular, the following topics will be addressed, among others:

- Inappropriate influence of drug companies on treatment decision-making through aggressive marketing.
- Non-reporting of critical results concerning efficacy or tolerability by pharmaceutical companies.
- Ethical issues in the context of the evidence-based medicine.
- The ethical dilemma that many economically poorer countries cannot afford the novel/innovative psychotropic drugs.
- The inequality in terms of the best treatment also seems to be a problem between different patient groups within countries.
- In many societies psychiatrists have difficulties to fight for an adequate drug budget in competition with the doctors from the other medical disciplines.
- Different patterns of under-diagnosis and under-treatment among different countries.
- The one-sided over-recognition of potential side effects leading to non-compliance.
- Inappropriate influence of mass media on the discussion of treatment options.

S02. Symposium: alcohol and tobacco: clinical management of the double dependence

S02.01

Treatment of comorbid nicotine dependence in alcohol and opioid addicts

N. Scherbaum [1], V. Günttner [1], P. Wendt [1], M. Banger [2], T. Kuhlmann [3], A. Feuersenger [4], R. Demmel [5], M. Gastpar [6]. [1] *Department of Addictive Behavior and Addiction Medicine, Rhine-State Hospital, University Hospital, Essen, Essen, Germany* [2] *Rhine-State Hospital, Bonn, Germany* [3] *Hospital of Psychosomatic Medicine, Bergisch-Gladbach, Germany* [4] *Institute for Medical Informatics, Biometry and Epidemiology, Medical Faculty, University of Essen, Essen, Germany* [5] *Psychological Institute I, University of Muenster, Muenster, Germany* [6] *Department of Psychiatry and Psychotherapy, Rhine-State Hospital, University Hospital, Essen, Germany*

Background: Alcoholics and opiate addicts are almost always nicotine dependent as well. In this study we investigate whether the percentage of alcohol and opiate addicts in inpatient detoxification treatment beginning nicotine dependence treatment can be increased by an individual intervention according to the principles of motivational interviewing (MI).

Methods: This controlled study was carried out in two hospitals each with parallel detoxification units for alcohol (Bonn) or opiate addicts (Bergisch Gladbach), respectively. The MI was done according to a manual by specially trained psychologists, followed by a manualized smoking cessation program.

Results: One hundred and fifty-two alcohol addicts and 86 opiate addicts were included. These patients were about 15% of all patients undergoing detoxification treatment during observation period. On average, they had a middle- to high-grade intensity of nicotine dependence (Fagerstroem-test). Regarding both addictions, a higher percentage of patients in the MI group attended at least one session of the nicotine cessation program than in the control group (alcohol addicts: 23.6% vs. 6.3%; 58.1% vs. 27.9%). Only four patients participated in all sessions. No patient achieved stable nicotine abstinence.

Discussion: The MI was succesful in increasing participation in a smoking cessation program. However, after discharge from the inpatient unit only few patients continued treatment. Perhaps, a more stable treatment setting (e.g. maintenance treatment, inpatient rehabilitation treatment) is more succesful regarding the achievement of nicotine abstinence.

S02.02

Inpatient withdrawal treatment of alcohol- and nicotine dependency—a belt and braces approach

B. Marx, M. Marx, A. Zoghlami, M. Musalek. *Anton Proksch Insitut, Vienna, Austria*

Alcohol misuse occurs in smokers 10 times more frequently than in non-smokers. As smoking rises the appearance probability for alcohol consumption, smoking alcoholics show lower rates of abstinence. There is some evidence that alcohol and nicotin dependency are stimulating the same dopaminergic system. Therefore, we started to offer a smoking cessation program parallel to the inpatient treatment of alcohol dependendy in the API. The programm is a closed behavioral group therapy for a period of 3 weeks, four times a week. Participation is voluntarily. Preceding to the group an information and motivation lecture will be given. The group starts with an analysis of the typical individual smoking behavior and smoking motivation, followed by enhanceing the motivation to stop smoking. As long as patients are still smoking, discussion of smoking protocols and carbomonoxide measurements are the first parts of the sessions. Parallel to that, coping strategies with stress and craving are as well exercised as alternate behavior instead of smoking. Self reinforcement and pleasure training are additional parts of the therapy. After about 10 days patients start to stop smoking. Now practising the coping strategies and if needed additional nicotin replacement therapy and psychopharmacological support for depressions and nervousness are in the focus. First results after 6 months: 35% of all starting patients and 51% of all those who took part in all 13 therapysessions, were non-smokers. It turned out, that a crucial point of the therapy is dealing with the changing motivation in a smoking surrounding.

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S02.03

Galantamine reduces smoking in alcohol dependent patients: a randomized; placebo-controlled trial

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Background and aims: The high morbidity and mortality caused by smoking highlights the importance of investigating new strategies for smoking cessation or reduction. Galantamine is an acetylcholinesterase inhibitor that increases the effect of acetylcholine (ACh). The nicotinic ACh receptor is activated via positive allosteric modulation (APL).

Methods: We investigated whether galantamine reduces smoking by performing a 24-week randomized, placebo-controlled, multi-centric clinical trial in recently detoxified alcohol dependent patients. We included all study subjects irrespective of an intention or motivation to abstain from nicotine. Specific treatment for cessation or reduction of smoking was not provided. Smoking behaviour was assessed by means of patients' diaries. The nicotine metabolite cotinine was measured to verify the number of smoked cigarettes as documented in the patient's diary.

Results: One hundred and fourteen randomized smokers received galantamine (n = 56) or placebo (n = 58) for 12 weeks. Terminated after an additional 12 weeks without treatment. The intention-to-treat analysis revealed significant differences with 20% lower cumulative number of smoked cigarettes and 15% lower number of smoking days in the galantamine group compared to placebo.

Conclusions: We suggest to introduce the term "substitution therapy" into the treatment of smoking. This result could open up a new treatment approach for groups of patients which usually have a low motivation for change.

S02.04

Simultaneous vs. delayed treatment of tobacco dependence in a sample of 106 alcoholics

G. Nieva, A. Gual, L.L. Ortega, S. Mondon. *Unitat Alcohologia, Hospital Clinic, Barcelona, Spain*

Aim: This study examines the best moment to quit smoking within an alcohol treatment. The sample was also analysed on differences concerning craving, self-efficacy and motivation to quit between the two substances.

Methods: Patients who came to Alcohol Treatment Unit and met criteria for alcohol and tobacco dependence and none exclusion criteria, were offered to participate in a tobacco cessation program. Participants were randomly assigned to the simultaneous intervention group or to the 6 months delayed group for tobacco intervention. They were informed after having signed an informed consent form.

Results: Five hundred and forty-eight new patients were interviewed, 387 (70.6%) were current smokers, 111 (20.3%) were non-smokers and 50 (9.1%) were former smokers. One hundred and six participants met all inclusion criteria and accepted to be in the smoking cessation program. They were randomised in either simultaneous group or delayed group. No significant differences were found between those who accepted and those who did not, as for age, gender, marital status, working status, occupation, cohabitation, education level and social class. There were not found any differences either for consumption of other drugs. It was a homogenoeus sample with no sociodemografic differences by sex, except for working status that was better in men.

Conclusions: Clinical data revealed better self-efficacy for alcohol cessation than tobacco. Further results will be presented.

S02.05

Smoking cessation and alcoholism treatment: current evidence and future directions

M.L. Willenbring. *Bethesda, MD, USA*

Comorbid nicotine and alcohol dependence is very common, and tobacco use disorders cause more death and disability among people with alcohol dependence than alcohol itself. Yet, many questions remain about treatment. Although smaller studies suggested that treating both disorders simultaneously was effective, the largest randomized trial to date (the TASC Study) found that nicotine treatment offered during alcohol treatment or 6 months later resulted in equal quit rates (about 13%), but that drinking outcomes were significantly worse in the group receiving concomitant treatment. Treatment for people with coexisting psychiatric disorders such as depression or anxiety disorders, which are also common in treatment-seeking alcoholics, also continues to be difficult. Finally, the relationship between nicotine and alcohol use in terms of mechanisms of action and relapse has not been clearly delineated. In this presentation, the TASC and other studies will be reviewed, and future directions for research will be identified.

S03. Symposium: recent advances in antidepressant brain stimulation treatment

S03.01

Vagus nerve stimulation in major depression: effective or not?

M. Bajbouj. *Psychiatry, Charité - Universitätsmedizin Berlin, Campus Benjamin Franklin, Berlin, Germany*

Left vagal nerve stimulation has established safety and efficacy as a long-term adjunct treatment for medication-resistant epilepsy. In addition, there is evidence from both animal and human studies that the vagus nerve carries afferents to limbic brain regions, providing a rationale for its possible role in the treatment of affective disorders. However, short-term (10 weeks) treatment with VNS failed to demonstrate statistical superiority over sham treatment in a recently completed double-blind study, so acute antidepressant efficacy has not yet been established. When response rates at longer-term follow-up investigations (1 and 2 years) are considered, patients with treatment-resistant depression have produced more promising results. In this talk the impact of the clinical data as well as further information regarding the possible stimulation parameter dose–response relation will be discussed in order to help to determine the place of VNS in the armament of therapeutic modalities available for major depression.

S03.02

Is magnetic seizure therapy (MST) an effective and safe alternative to RTMS and ECT?

M. Kosel [1], C. Frick [1], T.E. Schlaepfer [1,2]. [1] *Department of Psychiatry and Psychotherapy, University Hospital, Bonn, Germany* [2] *Department of Psychiatry and Behavioural Sciences/Johns Hopkins Hospital, Baltimore, MD, USA*

Background: Transcranial magnetic stimulation is a non-invasive method of brain stimulation, which is currently being evaluated for the treatment of major depression. A modified form of this treatment was

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recently developed, in which stimulation parameters are increased to a level that can reliably and reproducibly induce therapeutic seizures in humans and non-human primates in the same setting as the one used for electroconvulsive therapy (ECT). The first use of therapeutic magnetic seizure therapy (MST) in a psychiatric patient took place at the University Hospital in Bern, Switzerland, in May 2000. Results of a recent randomized, within-subject, double-masked trial comparing ECT and MST in 10 patients indicate that MST appears to have less subjective and objective side-effects, is associated with faster recovery of orientation and is superior to ECT on measures of attention, retrograde amnesia and category fluency.

Method: A patient suffering from recurrent major depression since adolescence was treated with MST in a setting similar to a standard ECT treatment. Twelve sessions of MST were administered.

Results: The severity of depression decreased gradually during the MST treatment as measured with the Beck Depression Inventory (score of 40 at baseline before MST, six afterwards) and the Hamilton Rating Scale of Depression (score of 33 at baseline before MST, 11 afterwards).

Conclusion: We report on the first treatment ever of a patient suffering from an episode of drug resistant major depression using MST. Very early results point to show efficacy of MST in refractory major depression.

S03.03

Focal electrically-administered seizure therapy (FEAST): a novel form of focal brain stimulation

R.M. Berman [1], H.A Sackeim [1], M.D. Truesdale [1], B. Luber [1], C. Schroeder [2], S.H. Lisanby [1]. [1] *Biological Psychiatry, New York State Psychiatric Institute/Columbia College of Physicians and Surgeons, New York, NY, USA* [2] *Nathan Klein Institute, Orangeberg, NY, USA*

Background: We are developing focal electrically-administered seizure therapy (FEAST) to enhance spatial targeting compared to conventional ECT, in order to increase clinical efficacy and decrease cognitive side effects. ECT uses bidirectional current and large electrodes placed unilaterally or bilaterally; FEAST uses unidirectional current with a small anterior anode and large posterior cathode.

Methods: Rhesus monkeys underwent seizure induction with FEAST or ECS. The FEAST cathode was placed over the right frontoparietal area, the anode centrally above the orbits. Seizure threshold was titrated by progressively increasing stimulus duration. Seizure expression was recorded via bilateral frontotemporal EEG. One subject was surgically implanted with three multicontact electrodes in the left and right cerebral hemispheres and the right hippocampal cortex. Potential differences across contacts and external reference, following subconvulsive single-pulse stimulations, were amplified and digitized to generate voltage maps.

Results: Intracerebral voltages increased linearly as a function of applied current amplitude. Voltage peaked in prefrontal cortex for both modalities, with a much steeper decrement posteriorly with FEAST. Seizures were induced with FEAST in all trials. Ictal EEG expression with FEAST was markedly asymmetrical, unlike with unilateral ECT. Asymmetric low-amplitude ictal activity, with no motor expression, was seen with FEAST at remarkably low dosage (3 mC), suggestive of focal prefrontal seizure activity without generalization. Quantitative analysis of ictal expression and post-ictal suppression with FEAST/ECS will be presented.

Conclusions: The capacity to efficiently induce focal seizures without motor generalization offers unprecedented opportunities to improve the risk/benefit ratio of ECT and investigate its mechanisms of action.

S03.04

Deep brain stimulation: a potential treatment for very refractory depression?

T.E. Schlaepfer [1,2], C. Frick [1], D. Brodesser [1], M. Cohen [1,3], N. Axmacher [3], M. Kosel [1], D. Lenartz [4], V. Sturm [4]. [1] *Department of Psychiatry, University of Bonn, Bonn, Germany* [2] *The Johns Hopkins Hospital, Baltimore, MD, USA* [3] *Department of Epileptology, University of Bonn, Germany* [4] *Department of Stereotactic Neurosurgery, University of Cologne, Cologne, Germany*

Recently, the results of deep brain stimulation (DBS) close to the subgenual cingulate region cg25 (Brodmann area 25) in six patients with refractory major depressive disorder were reported by Mayberg and colleagues. The authors chose this target on the basis of their previous findings that this region is implicated in acute stimulus-induced sadness, is metabolically overactive in treatment-resistant depression, and that clinical improvement after pharmacotherapy, psychotherapy is correlated with decreases in its metabolic activity.

A core symptom of major depression is anhedonia (decreased drive and reward for pleasurable activities), anxiety, and reduced motivation. The brain reward system consists of the neural pathways involved in eliciting rewarding experiences in animals and humans. Its structures, the striatum (particularly the ventral striatum or nucleus accumbens (NAcc)) and amygdala, are important in emotional memory, and could as a result mediate those symptoms. This makes the NAcc another particularly interesting stimulation site for DBS in patients suffering from intractable major depressions.

No symptoms of hypomania, anxiety or other psychiatric symptoms were observed in the first 10 days after initiation of chronic stimulation with 2 V at 145 Hz in our patients. Clinically, motivation and drive improved drastically immediately after stimulation, his mood within hours.

DB stimulation of the NAcc seems to be another hypothesis guided putative approach in influencing depressive symptomatology in extremely refractory patients. It might well be that the symptoms of anhedonia and decreased drive respond to such an intervention.

S31. Symposium: behavioural phenotypes

S31.01

The concept of behavioural phenotypes revisited

S. Tuinier, J. Egger, W. Verhoeven. *Vincent Van Gogh Institute for Psychiatry, Poortugaal, The Netherlands*

The term behavioural phenotype was originally introduced by Nyhan in 1972 who postulated that specific genetic disorders are associated with a particular behavioural profile. Subsequently, the concept was further elaborated in 1994 by Flint and Yule who formulated two essentials: a distinctive behaviour that occurs in almost every case of a genetic disorder and a direct relationship of the behaviour with the genetic anomaly.

Although some behaviours may be specific for a genetic disorder like ‘upper body spasmodic squeeze’ in Smith Magenis syndrome and skin picking in Prader–Willi syndrome, most behaviours, symptoms and psychiatric syndromes are not specific for a genetic disorder. Several authors have stressed that a behavioural phenotype should

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include physical and motor aspects, the longitudinal fluctuations of behaviour and the probabilistic nature of behaviours as well as the developmental trajectory.

The discussion on behavioural phenotypes should be reoriented towards a quantitative probabilistic approach. This can be achieved by a 'feature based model' which assumes that certain entities are best represented in terms of sets of qualitative features. According to this model a behavioural phenotype should be considered as a set of hypothetical abstractions or components that are constituted by various features. The linkage between the features and the hypothetical abstractions can be quantified in terms of their cue validity. Consequently, the likelihood of the presence of a behavioural phenotype can be estimated and the possible connection with genetic abnormalities or a genetic subtype can be investigated.

S31.03

Genetic syndromes and behaviour: the phenotype–genotype challenge

C.M. van Ravenswaaij-Arts. *Department of Human Genetics, Radboud University Nijmegen Medical Centre, Nijmegen, The Netherlands*

For some genetic syndromes like Angelman, Down, Fragile-X, Klinefelter, Prader–Willi, Rubinstein–Taybi, Smith–Magenis, Turner, Velo-Cardio-Facial and Williams syndrome a behavioural profile is known. This behavioural profile can be helpful in making the syndrome diagnosis. This is especially true if the aberrant behaviour is very obvious, as in Angelman and Smith–Magenis syndrome, but also if the behaviour is found in all affected patients, like in fragile-X syndrome.

In other, predominantly complex, syndromes behavioural problems can vary enormously. The challenge is to unravel the environmental and epigenetic factors that may explain this variation in behavioural phenotype. An example of this is CHARGE syndrome, a very complex syndrome in which many organ systems can be involved in different combinations. By carefully phenotyping all clinical problems and good observational research the influence of sensory and other physical deficits on development and behaviour (especially obsessive–compulsive disorders) in CHARGE patients has been documented.

An example of an epigenetic factor is imprinting. It is known that a maternal duplication of the proximal long arm of chromosome 15 results in autistic behaviour, while a duplication on the chromosome 15 derived from father does not.

The recent introduction of arrayCGH, a technique that enables very accurate genotyping in chromosomal syndromes, has created a new challenge for the localisation of genes that might play a role in behavioural phenotypes. By comparing the behavioural profile of patients with small overlapping deletions, chromosomal regions can be identified that may harbour genes involved in behaviour.

S31.04

The psychopathological phenotype

W. Verhoeven, S. Tuinier. *Vincent Van Gogh Institute for Psychiatry, Venray, The Netherlands*

Prader–Willi Syndrome (PWS) and 22q11 deletion syndrome (VCFS) are associated with psychotic disorders that are as a rule not included in the behavioural phenotype. In contrast, psychiatric symptoms seem to be underrepresented in Noonan syndrome (NS).

Concerning NS, however, social and psychological deficits mask the psychopathology which consists of anxiety symptoms and alexithymia. The latter is often mistaken as a form of autism.

In post-adolescent patients with PWS several categorical psychiatric diagnoses have been established ranging from paranoid psychosis to bipolar affective disorder. In our own series of 27 patients who were referred for neuropsychiatric evaluation because of relapsing psychotic symptoms, the psychiatric syndrome was composed by confusion, anxieties, emotional turmoil, affective instability, auditory hallucinations, perceptual disturbances and an increase of compulsive rituals. In all patients a long-lasting history of mood instability was present and an absence of a family load with bipolar affective disorder. In the acute phase, the psychopathological picture resembled that of a cycloid psychosis

In VCFS an association with schizophrenia has been reported. In our series of 19 psychotic post-adolescent patients, the clinical picture comprised anxieties, paranoid ideation, delusions, affective instability and OCD-like behaviours. Neuropsychological examination revealed an impaired comprehension of abstract and symbolic language and personality adjectives like shy, moody, irrational and unempathetic. These neuropsychological deficits are closely related to the observed psychiatric symptoms.

It is concluded that categorical psychiatric diagnoses in genetic syndromes are not appropriate and that they should be replaced by a dimensional assessment of psychiatric symptoms and neuropsychological parameters.

S12. Symposium: new developments in neuroimaging of psychosis

S12.02

Prediction, genetic imaging and multi-centre studies

S.M. Lawrie, A.M. McIntosh, B.J. Baig, J. Hall, D. Job, H.C. Whalley, T. William, J. Moorhead, E.C. Johnstone. *Division of Psychiatry, University of Edinburgh, Royal Edinburgh Hospital, Edinburgh, UK*

Introduction: Over the past 10 years or so we have repeatedly studied a well-characterised cohort of individuals at high risk of schizophrenia for familial reasons using structural and functional MRI. As some have become ill, most have been genotyped and we have had to use two different scanners, we have data pertinent to each of the topical areas mentioned in the title.

Methods: We have compared subjects who became ill with those who did not on behavioural and imaging terms; evaluated the relationship of COMT and DISC1 allelic polymorphisms to brain structure and function; and evaluated a range of possible metrics of scanner differences was investigated data collected on the high-risk subjects before their disease outcome was known.

Results: The development of schizophrenia was predicted by both s&fMRI measures of potential clinical utility; subjects with particular COMT and DISC1 alleles had reduced grey matter density and/or BOLD signal differences in prefrontal and/or temporal cortex.

Discussion: These and related studies open up the possibility of multi-centre genetic imaging studies that could usefully predict schizophrenia and evaluate potentially preventative treatments.

S12.03

Cortical gyrification and (developmental) pathopsychology

J.L. Martinot [1], T. Kircher [2], P. McGuire [3], M.L. Paillère-Martinot [1,2,3,4], A. Galinowski [5], D. Januel [6], R. De Beaurepaire [7], D. Ringuenet [1], M. Plaze [1], J. Andoh [1], E. Artiges [1], F. Bellivier [4], E. Duchesnay [1], A. Cachia [1], J.F. Mangin [1],. [1] *Research Unit INSERM-CEA URM 02-05,*

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Background: The most striking, yet poorly understood morphological features of the human cerebral cortex are the complex arrangements of its foldings : the sulci and gyri. Cortical gyrification is formed during fetal age and childhood. Abnormal brain maturation has been suggested as risk factor for schizophrenia. Thus, indices of brain maturation deviation are needed. Measures of the folding pattern could provide cues for the neurodevelopmental aspects of pathopsychology.

Method: Brain morphometry softwares providing 3D sulci descriptors (surface, Departmenth, length…) from MRI (Mangin, 2004; Cachia, 2003). This method avoids biases inherent to image normalisation. The image spatial sampling leads to good estimation of the sulci shapes, while cortical thickness or grey/white classification depend on scanners and MRsequences because of partial volume effect. Sulcal measurements should also be less sensitive to plastic modifications of the brain induced by treatments. Therefore, statistics on sulcal measurements should generalize across patients and hospitals.

Results: As a validation, MRI datasets in controls showed that handedness modify the folding of the motor area in dominant hemisphere (Mangin, 2004), and differences in left and right superior temporal sulci which may stem from language-based asymmetries (Ochiai, 2004). In a sample of schizophrenia patients with chronic auditory hallucination sulci descriptors differed bilaterally in the heteromodal associative regions and in regions involved in inner speech processing. In patients with treatment-resistant depression, sulci descriptors differed in the "emotional' anterior cingulate.

Conclusion: The potential of the gyrification pattern for the inference of neuroimage-based developmental indices will be examined in larger samples.

S12.04

How genes may influence brain function in schizophrenia

T. Kircher. *Universitätsklinikum Aachen, Klinik für Psychiatrie und Psychotherapie, Aachen, Germany*

Recent linkage studies have identified a significant association of the Neuregulin (NRG1) gene with schizophrenia, but how it is involved in the disorder is largely unknown. The presentation will review the current literature and focus also on some recent own data. First episode patients with schizophrenia performed a letter n-back task while their brain activation was measured with functional magnetic resonance imaging. Neuronal signal changes (BOLD effect) were compared between patients with and without the NRG1 risk haplotypes.

Group comparison within the patients during working memory load (2-back vs. 0-back) revealed that those without genetic risk showed stronger activations than those with genetic risk in the left inferior frontal cortex. The NRG1 risk gene may affect developmental neuronal migration, myelination until early adulthood, synaptogenesis/-plasticity and NMDR receptor function, leading to a suboptimal frontal lobe function in schizophrenia as revealed by decreased signal changes during cognitive tasks.

S21. Symposium: neurobiology and treatment of mood disorders in women

S21.01

Irritability and the spectrum of female-specific mood disorders

L. Born [1], **M. Steiner** [1,2]. *[1] Women's Health Concerns Clinic, St. Joseph's Healthcare Hamilton, Hamilton, Ont., Canada [2] Psychiatry and Behavioural Neurosciences and Obstetrics and Gynecology, McMaster University, Hamilton, Ont., Canada*

Background: Irritability is a prominent symptom in women with mood disturbances related to the menstrual cycle, childbearing, and menopause. In some women irritability is serious enough to disrupt their lives and warrant treatment. In the DSM, irritability is a symptom of other mental or physical conditions, and its assessment has been subsumed by attention to depression and anxiety. Preliminary studies showed that descriptions of irritability by women strikingly differ from its description by men. There is additional evidence from biological, behavioural, and treatment studies that irritability may be a distinct mood condition in women. A new state measure of irritability was developed at the Women's Health Concerns Clinic, St. Joseph's Healthcare, Hamilton, Ontario.

Methods: The scale was constructed using items derived from spontaneous descriptions of irritability by patients and healthy controls, and some items from existing measures of irritability. Following a pre-test, the items were reduced to the core aspects (annoyance, anger, tension, hostile behaviour, sensitivity) of irritability.

Results: The reliability study for the 14-item self-rating (Cronbach's alpha = 0.9257; mean inter-item correlation = 0.4690) and the five-item clinician-rating (Cronbach's alpha = 0.7418; mean inter-item correlation = 0.3616) scales showed evidence for internal consistency and test–retest reliability (rs = 0.704, P = 0.01) in a relatively homogeneous sample.

Conclusions: This new, gender-specific scale for rating irritability has the potential to further the evaluation of a prominent, but under-recognized, phenomenon and increase specificity in clinical assessments and treatment strategies of emotional disturbances related to reproductive cyclicity in women.

S21.03

Emotion processing and cognition in female-specific mood disorders

G.M. Sachs, M. Schaffer, G. Lenz. *Department of Psychiatry, Medical University of Vienna, Austria*

In the field of gender differences in mood disorder recent research has shown that male and female bipolar disorder patients have different cognitive and emotion recognition impairments. These differences in cognitive deficits may be connected with monoaminergic dysfunctions. Estrogen has an effect on monoamin-neurotransmission and low levels of estrogen are associated with impaired cognition and emotion recognition deficits in female patients. Gender differences in mood disorder are mediated by cognitive vulnerability. Data on gender differences in cognition and emotion recognition in bipolar disorder compared to healthy volunteers will be presented. There is evidence of cognitive deficits in the following areas: episodic memory, sustained concentration, verbal fluency and visuospatial skills. Executive dysfunction in female patients with a history of chronic unipolar disorder is lower than in male patients. The human brain is sexually dimorphic which has implications for volumetric differences in the

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amygdala and orbitofrontal regions. Functional neuro-imaging studies of mood disorders have indicated that the frontal cortex, basal ganglia, and temporal lobes are involved. In bipolar and major depressive disorder increased subcortical responses to sad facial expressions have been demonstrated. The gender differences may also play a predictive role for clinical outcome.

S21.04

Mood, hormones and menopause in the aftermath of the women's health initiative study—quo vadis?

A. Riecher-Rössler. *Psychiatric Outpatient Department, University Hospital, Basel, Switzerland*

Purpose: The meaning of menopause and its hormonal changes for women's mental health will be discussed in the light of the rececnt controversy on hormone (replacement) therapy.

Methods: A selective review on the influence of menopause on mental health will be given. Some controversial topics including the question of hormone therapy will be highlighted.

Results: The influence of menopause on mental health is still controversially discussed—partly due to a lack of sound knowledge, partly for ideological reasons. Many studies suffer from methodological limitations so far, and discussion often fails to clearly difffentiate e.g. between perimenopause versus postmenopause, menopausal transition versus aging, mental disorder versus minor changes of wellbeing, incidence versus prevalence, changes as causal versus triggering factors, prophylaxis versus treatment.

Not all, but certain vulnerable women may suffer from hormonal changes of perimenopause and the manifold psychosocial changes in this phase of life. Physiologic estrogen production is lost with menopause. As estrogens have important neuro- and psychoprotective activities, this loss can probably trigger or aggravate mental disorders in vulnerable women.

Conclusions: Oestrogen substitution might be helpful in some cases, but also bears risks. More research on indications and contraindications as well as on other oestrogenic compounds and new, safer substances is needed.

S23. Symposium: complex organisational and clinical issues in consultation–liaison psychiatry

S23.02

The psychopathology of depression in medical patients in Spain: cross-cultural differences?

A. Lobo, J.A. Aguirre, P. Saz, A. Sarasola, C. De La Cámara, M.F. Barcones. *Hospital Clínico Universitario, Servicio de Psiquiatría, Zaragoza, Spain*

Background and aims: We have previously described cross-cultural, European differences in the psychopathological profiles of depressed patients in the elderly community. We now hypothesize that the profiles in the predominantly elderly patients hospitalized in medical floors in Zaragoza will show special cultural characteristics.

Methods: Sample: Consecutive, adult patients hospitalized in medical wards in the University hospital in Zaragoza, Spain. Sample size has been calculated to test the hypotheses with enough statistical power (type I and type II errors considered). Instruments: Standardized, Spanish versions of assessment instruments, including Hospital Anxiety and Depression Scale (HADS) and the Standardized Polyvalent Psychiatric Interview (SPPI) were used, and the cases of depression were diagnosed according to ICD-10 research criteria for medical patients (ECLW).

Procedure: Hospital phase: screening by lay interviewers and assessment of "probable cases" and "probable non cases" by standardized clinicians (SPPI). Follow-up phase in Primary Care (6 months), with a similar procedure. The profiles in depressed patients in the hospital phase will be compared to both profiles in non-cases and previously reported profiles in depressed individuals in the community.

Results: Preliminary analysis suggests that the SPPI psychopathological profiles in hospitalized depressed patients and controls are similar, but statistically significant differences in the severity of symptoms have been documented. This analysis also suggests that psychopathological symptoms may fit the expected profiles in Spanish patients.

Conclusions: Preliminary data suggest that the psychopathological profiles of depression in medical patients in Spain may have some characteristic features of Spanish culture.

S23.03

Somatization in a cross cultural perspective: a survey in general population

M. Rigatelli, S. Ferrari, D. Malmusi, C. Giubbarelli. *Department of Neuroscience, Section of Psychiatry, University of Modena and Reggio Emilia, Modena, Italy*

Background and aims: Many authors have suggested that immigrants from non-western countries report somatic symptoms more frequently than western people.

The aim of this study was to compare rates of somatization in general population of Italian and non-Italian origin, and to relate them with demographic and psycho-social variables.

Methods: Somatization was assessed by means of the Bradford Somatic Inventory, short version (BSI-21) [1], a self-administered questionnaire, created and validated as transcultural. Other questions on level of satisfaction experienced, opinions on causes and remedies were included in the interview. A general population sample of Italians (229 subjects) and immigrants (193 subjects) was obtained using health public system users' list and was recruited with a letter from the subject's General Practitioner.

Results: Immigrants had a higher median punctuation (8.04 vs. 5.68, $P < 0.001$). Between migrants, age older than 40, unemployment, problems with language, low satisfaction levels in life aspects, Asian and African origin were associated to higher punctuations. Migrants who have been living in Italy for 5–10 years show more symptoms than migrants who have arrived more recently.

Conclusions: Immigrants experience more non-organic somatic symptoms, and this seems to be primarily due to their precarious social conditions, to adaptation problems and to consequent psychological distress.

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S23.04

Cross-cultural aspects of suicide behaviour and suicide risk

A. Marusic. *Institute of `Public Health of the Republic of Slovenia, Ljubljana, Slovenia*

Suicide is not a simple personal trait and as in the case of other complex behaviour patterns, it is reasonable to say that the predisposition towards suicide consists of numerous factors, which manifest themselves as suicidal behaviour only when a certain threshold of predisposition is crossed. We will attempt to discuss variability of suicide rates and suicide risk factors across Europe. This will be followed by a brief discussion of the J curve (European countries with a higher suicide rate form a so-called J curve, which starts in Finland and extends down to Slovenia), which maps on to the second principal component identified for European gene distribution, representing the ancestral adaptation to cold climates and the Uralic language dispersion. Furthermore, we will discuss whether the group of people living within the J-curve could share genes, which may not tolerate well excessive amounts alcohol, the combination of which is more likely to end in suicidal behaviour. Further along we list possible ways in which suicidal behaviour could have been selected for genetically in populations and identify those specific populations in which it may have appeared. Finally, we point at other locations in the world where a similar interplay has probably occurred, Greenland being the best example of the malignant interaction of alcohol consumption and the trait-like characteristics, which might constitute the vulnerability to suicidal behaviour.

S08. Symposium: management of potentially difficult or violent patients in the community

S08.01

Indications for outpatient treatment and management in forensic psychiatry

N. Nedopil, S. Stübner. *Department of Forensic Psychiatry, Psychiatric Hospital of the University, Munich, Germany*

The treatment and management of potentially dangerous especially potentially violent patients has received increased attention both among practitioners and researchers. In Germany the field is predominantly examined by forensic psychiatrists, who could prove that the rate of criminal recidivism was drastically reduced by adequate outpatient management of patients released from forensic hospitals. Some of the experiences gained can be transferred to outpatient treatment in general psychiatry.

In an own recent study which followed the treatment of 156 forensic outpatients over 1 year only one reoffence was noted and seven times preventive hospitalisations were necessary. The aim of the study was to develop a structured procedure to define the indications for outpatient treatment of previously aggressive patients. Therefore these patients were compared to a sample of forensic inpatients matched for crime and duration of hospitalisation. The were no patients with sexual crimes in the outpatient group although about 20% of all hospital patients had committed a sexual crime. Patients of the outpatient group were more often schizophrenic (outpatients 50% vs. inpatients 35%), were less psychopathic (mean of PCL-R scores: 8.1 vs. 12.7) and had lower scores in the HCR-20, most predominantly in the C-scores (mean: 1.8 vs. 7.9). "Insight" (C-variables) and "Compliance" (H-variables) were the parameters, which differed most significantly between outpatients and inpatients.

Treatment intensity varied not only according to psychopathology but even more according to risk variables associated with recidivism and needs of patients, and differed in that respect from the practice of many clinicians.

S08.02

What is community forensic psychiatry? An overview

S.E. Davison. *South London and Maudsley Trust, London, UK*

The vast majority of psychiatric patients are now cared for in the community as out-patients. Over recent years there has been increasing concern about the risk of violence that some patients pose to others. This has led to an increasing interest in how best to manage such patients in the community. In this talk I will provide an overview of the clinical, ethical and legal issues involved in managing potentially violent patients in a community setting. Clinical issues involve discussion about whether specialist community services are needed or whether improving the treatment of all community patients is most effective; as well as the effectiveness of risk assessment. Ethical issues include the debate around compulsory treatment in the community; the fair distribution of scarce resources; and the sharing of information with criminal justice agencies. The legal issues are whether special laws are really needed to manage such patients in the community? I will present the relevant research literature and describe our community forensic service in South East London. I will conclude that the exact model of care should depend on local circumstances but that there are some key common features of effective community care for violent patients.

S08.03

Effectiveness of pharmacotherapy for borderline and antisocial personality disorders

B. Vollm. *Neuroscience and Psychiatry Unit, University of Manchester, Manchester, UK*

Background and aims: Personality disorders (PDs) are common with a prevalence of up to 10% in the general population and much higher rates in patient groups. Cluster B PDs, mainly borderline and antisocial personality disorders (BPD and ASPD), are associated with particularly high levels of intra- and interpersonal distress, yet treatment options are limited. Different pharmacologic agents have been used, however, no reviews are available providing clinicians and patients with the information needed to make informed treatment decisions. This presentation aims to review the evidence base for effective drug treatment of BPD and ASPD.

Methods: MEDLINE, PsycINFO, Embase and a number of other databases were searched for controlled and non-controlled trials of any pharmacological agents in adult BPD and ASPD patients. Studies were selected according to set criteria and data extracted.

Results: Several hundred citations were assessed and over 50 studies were included in this review. A range of different drugs have been used in ASPD and BPD. The highest quality evidence (randomised controlled trials) is available for treatment with SSRI's, olanzapine and sodium valproate. For ASPD no controlled or larger non-controlled trials were identified.

Conclusions: The implications of this evidence for clinical settings will be discussed in a framework of target symptoms for different psychopharmacological approaches.

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S20. Symposium: effective mental health treatment with migrants

S20.01

Cultural aspects in the diagnosis of mental disorders among migrants

C. Haasen. *Department of Psychiatry, University Medical Center Eppendorf, Hamburg, Germany*

The problems in the treatment of mental disorders among migrants start with difficulties in diagnosing the disorders, mainly due to differences in syndromal presentation. The social context and especially the cultural environment need to be assessed in order to diagnose a mental health problem—cultural ignorance can then result in misjudgement. A common belief not based on empirical evidence is that there is a higher degree of somatisation among migrants, which has been proven not to be valid by several studies. The role of language barriers leading to misdiagnosis is generally overemphasised. The lack of cultural sensitivity in the diagnostic process can lead to misdiagnosis as other mental disorders or as somatic disorders, delaying the necessary treatment of disorders. Therefore, culturally sensitive guidelines in the diagnosis of mental health disorders are necessary to avoid misdiagnosis among migrants.

S20.02

The use of clinical guidelines to optimise treatment of migrants

M. Kastrup. *Centre Transcultural Psychiatry, Rigshospitalet, Copenhagen, Denmark*

Like other branches of medicine, psychiatric treatment today is focusing on documentation and accreditation of the interventions provided.

Less focus is given to the specific cultural aspects of the treatment provided.

The DSM IV has developed a Cultural Formulation scheme to ensure due consideration of cultural perspectives.

Clinical guidelines developed with the cultural perspective in mind may also be a useful tool to ensure that such aspects are taken into consideration in clinical assessments, and treatment planning.

The paper will describe the clinical guidelines at the Centre for Transcultural Psychiatry in Denmark based on experiences form national focus group interviews with mental health professionals. Advantages and limitations of the guidelines will be discussed

S20.03

Culturally sensitive treatment evaluation

F. Collazos. *Servei de Psiquiatria, Hospital Universitari Vall D'Hebron, Barcelona, Spain*

Treatment outcome with ethnically diverse patients is generally found to be worse than that with majority group members. Apart from the well known biological differences, cultural aspects have also been found to play an important role in these poor treatment outcomes. The way in which treatment response is evaluated can be culturally biased just as can be the pharmacological research carried out prior to the launch of a psychopharmacological product. The instruments and methodologies used to evaluate treatment response tend to be Eurocentric, to the extent that it is sometimes difficult to discern if outcome is due to treatment or due to measurement error. Culturally sensitive research, particularly concerning treatment evaluation is essential for the provision of quality care for all patients.

S20.04

Psychotherapy with the culturally different patient

A.S.F. Qureshi. *Servei de Psiquiatria, Hospital Universitari Vall D'Hebron, Barcelona, Spain*

Psychotherapy consistently shows positive results for a variety of disorders, and yet in the intercultural encounter is often not effectively applied. A key question remains as to whether or not psychotherapeutic interventions are feasible with migrant and ethnic minority patients. Research and theory will be reviewed which, although limited both in volume and scope, indicate that psychotherapy can be highly effective, regardless of the ethnic origin of the participants. At the same time, it is evident that there are a variety of impediments to effective therapy. Differences in worldviews related to causality, locus of control, and values can complicate the effectiveness of psychotherapy, given its European cultural foundation. Furthermore, clinician bias combined with perceived discrimination on the part of the patient can seriously impede the development of a strong therapeutic relationship, necessary for effective psychotherapeutic treatment. Effective intercultural psychotherapy is eminently feasible, although it requires adjustment on the part of the clinician. Specifically, awareness of the impediments described above combined with a willingness to adopt a more flexible approach provides the foundation of effective work with migrant and ethnic minority patients. Explanation and negotiation with the patient of the therapeutic process, adaptation of treatment approach, planning, and objectives, and comfort with ethnic and cultural difference comprise the cornerstones of intercultural psychotherapy. Strategies will be outlined for concrete steps that can be taken to improve the therapeutic relationship, which, combined with the above, provides the clinician with a strong basis on which to effectively treat the culturally different patient.

CS02. Core symposium: stigma of mental illness: consequences for treatment

CS02.01

Competing stigma by choosing the right drug

W.W. Fleischhacker. *Department of Biological Psychiatry, Medical University Innsbruck, Innsbruck, Austria*

Stigma and discrimination of patients suffering from psychiatric disorders represent a problem of major social relevance. With regard to its impact upon treatment, this issue has political as well as medical dimensions. Politically, discrimination against the mentally ill results in an absolute or relative lack of mental health resources resulting in the deplorable fact that treatment is either not available at all or only at a suboptimal level. From a medical perspective, treatments can either reduce or enhance the stigma of those afflicted with a disease. A patient, who, for instance, gains weight on lithium or suffers from neuroleptic induced parkinsonism will stand out more clearly from the healthy population and may therefore run a higher risk of being stigmatised. On the other hand successful integrative treatment measures will enhance psychosocial reintegration and thereby reduce the burden of stigma. Clearly, an illness and the stigma associated with it relate to each other in a vicious circle: stigma and discrimination significantly add to the burden of disease which, in turn, will prevent successful treatment and recovery and therefore propagate stigma.

Consequently, the responsible psychiatrist has to be engaged politically in assuring the provision of a good level of care and from a medical perspective will choose treatment strategies with a benefit/risk

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ratio providing the best available chances for response and destigmatisation.

CS02.02

Self stigma or self discrimination?

G. Thornicroft. *Health Services Research Department, Institute of Psychiatry, King's College, London, UK*

One surprising aspect of stigma is that many consumers feel discriminated against by health and social care staff, even though these are precisely the staff who are trained and experienced in offer assistance to people with mental illnesses [1–3]. Furthermore, the 'social contact' hypothesis suggests that those with more contact with people with a diagnosis of mental illness will have more favourable and less stigmatising views, but this approach does not seem to apply to mental health staff. A particular concern for many consumers is that they feel they receive a second-class service from their family doctor or from casualty/ER departments when staff learn of the mental illness, with poorer physical health outcomes [4]. This paper will discuss the evidence that healthcare staff may be relatively stigmatising in providing both mental and physical healthcare to people with a diagnosis of mental illness.

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CS02.03

Stigma of mental illness: consequences for access to treatment

W. Gaebel. *Department of Psychiatry and Psychotherapy, Heinrich-Heine-University, Rhineland State Clinics, Düsseldorf, Germany*

The stigma of mental illness does not only concern those who are mentally ill, but also psychiatric institutions, treatment methods and professions. It is supposed that this "generalized" stigma has negative consequences both on mental health service users and providers.

From the point of view of the (potential) mental health care user, the negative image of the mental health care system can lead to a delayed health care utilization, thus leading to an aggravated illness course. Several aspects contribute to the rejection of mental health care utilization, e.g. an increased fear of side effects of physical treatment methods, or the fear of being stigmatized because of being treated in a psychiatric hospital. Furthermore, mental health care users generally are influenced by their relatives and close peers in their decisions whether to use the psychiatric health care system and its treatments, especially whether to take psychotropic drugs.

Concerning the provision of mental health care, the stigma of mental illness complicates structural decisions, e.g. where to establish early recognition centres, forensic services, group homes for former psychiatric patients, or other local mental health services.

Empirical findings from attitude surveys will be presented and discussed with respect to consequences for future anti-stigma interventions.

CS02.04

Stigma of mental illness and its consequences for treatment from families' perspective

S. Steffen. *European Federation of Associations of Families of People with Mental Illness (EUFAMI), Salzburg, Austria*

Many times, the fact is neglected that not only the mentally ill themselves, but also their families suffer from the circumstances and consequences of the disease. EUFAMI's ZeroStigma campaign found that 83% of patients feel that stigma is one of the primary barriers to their recovery. Most family members are helpless and do not know how to deal with the situation—the main problem for them being the lack of information about the illness. Reducing stigma not only means to raise awareness among the general public, but also to provide factual data to the immediate family in order to reduce also their misconceptions and fears.

Medical treatment can have a great influence on the amount of stigma that the patients have to face, as well in positive as in negative terms. Providing regular physical checkups and adjusting the medication accordingly will reduce health risks, and improve the physical appearance.

S01. Symposium: the right drug for the right patient

S01.01

Choosing the right antipsychotic for the right patient

J. Bobes. *Medicine Department, Psychiatry Area, University of Oviedo, Oviedo, Spain*

Background and aims: The atypical antipsychotics currently available have shown a greater efficacy, although differ from each other mainly in their tolerability profile. The aim of this presentation is to discuss the key points for choosing the right antipsychotic for each patient.

Methods: Results from the Clinical Trial CATIE (USA) and the retrospective, cross-sectional EIRE and CLAMORS studies (Spain) were reviewed. In CATIE-study probable tardive dyskinesia was assessed using the Schooler–Kane criteria. In EIRE-study adverse effects were assessed using a modified version of the UKU-scale. MS was defined by at least three of the following components: waist circumference > 102 (men)/> 88 (women) cm; tryglicerides >= 150 mg/dl; HDL-cholesterol < 40 mg/dL (men)/<50 mg/dl (women); blood pressure >= 130/85; fasting glucose >= 110 mg/dl. CHD-risk was assessed using the Framingham (10-year all CV events) equation.

Results: One thousand and four hundred and sixty [1079 men, 73.9%; 40.4 ± 11.2 years (mean ± S.D.)], 636 (389 men, 61.6%; 36.8 ± 12.3 years), and 1452 (863 men, 60.9%; 40.7 ± 12.2 years) evaluable patients were included (CATIE, EIRE and CLAMORS studies, respectively). 19.3% presented probable tardive dyskinesia (CATIE-study), 14.6% any moderate or severe extrapyramidal adverse reaction (CLAMORS-study), 37.6% (42.0% men, 28.9% women) sexual dysfunction (EIRE-study), and 46.1% (35.5% men, 76.3% women) (CATIE-study) and 42.4% (34.3% men, 54.5% women) (CLAMORS-study) abdominal obesity. 40.9% (36.0% men, 51.6% women) (CATIE-study) and 24.6% (23.6% men, 27.2% women) (CLAMORS-study) MS. Overall 10-year-CV-events-risk was 9.4 ± 7.2 (mean ± S.D.) (men) and 6.3 ± 6.3 (women) (CATIE-study), and 8.8 ± 8.2 (men) and 4.8 ± 5.8 (women) (CLAMORS-study).

Conclusions: Risk for extrapiramidal adverse effects, sexual dysfunction, abdominal obesity, MS and CHD should be considered

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individually. Antipsychotics with neutral effect on these adverse events and metabolic profile should be particularly considered as first choice in patients with obesity and/or cardiovascular risk factors. Psychiatrists should consider swiching antipsychotics in case of adverse event.

S01.02

Antidepressants: what are the differences?

M. Ackenheil. *Psychiatric University Hospital, Munich, Germany*

Currently there are at least 13 groups of different antidepressants available: classical tricyclic antidepressants, selective serotonin reuptake inhibitors (SSRI), selective noradrenaline reuptake inhibitors (SNaRI), selective serotonin and noradrenaline reuptake inhibitors (SSNaRI), noradrenaline α2 receptor antagonists, serotonin 5-HT2 receptor antagonists, reversible and selective inhibitors of monoamine oxidase A (RIMA) and other monoamine oxidase inhibitors (MAOIs), dopamine and noradrenaline reuptake inhibitors, 5-HT1A serotonin receptor antagonists, melatonine agonists.

There clinical efficacy has been proofed mostly by placebo controlled clinical trials, however there are frequently non responders for various reasons. Although the heterogenity of depressive disorders is a well known phenomenon, there are no guidelines for the choice of the right antidepressant in clinical praxis. Mostly patients are treated according to experience of the psychiatrist frequently polypharmacy is the result, which with some exceptions is not justified. Sometimes between first, second and third generation of antidepressants is differentiated. The major differences are fewer side effects which is reflected by lower drop out rates in controlled clinical trials. In order to improve the treatment both the characteristics of the individual patient (age, gender, symptomatology, co-morbidity, somatic disorders) and the different pharmacological profile of the antidepressant has to be considered. Hints and examples for the choice of the right drug will be presented.

S01.05

Future tailored treatments for psychiatric patients: pharmacogenomics and proteomics

W. Maier. *Department of Psychiatry, University of Bonn, Bonn, Germany*

Currently, the selection of the most appropriate antidepressant drug for an individual patient cannot rely on well-established prediction of drug response and is still a matter of "trial and error". Given that DNA sequence variations are a most important source of inter-individual differences genetic factors present as strong candidates for determining individual drug response. Only recently, since it has become feasible to analyze genetic variation systematically at the ultimate level of resolution, i.e. the DNA sequence, pharmacogenomic investigations offer the opportunity to individualize therapy according to the growing knowledge of the function and effect of the genetic polymorphisms that affect the pharmacokinetics and pharmacodynamics. On the pharmacokinetic level, polymorphic phases I and II drug-metabolizing enzymes and transport proteins affect drug concentration at the target structure. Genetic alterations affecting drug pharmacodynamic properties have an impact on therapeutic outcome that is generally independent of the applied dosage regimen. The specific approaches taken will have a critical impact on the successful identification of disease genes, the molecular correlates of drug response and the establishment of meaningful relationships between genetic variants and phenotypes of biomedical and pharmaceutical importance in general. Future approaches to the identification, evaluation, and priorization of drug targets, the optimization of clinical trials, and the development of efficient therapies must be based on in-Departmenth knowledge of candidate gene variation as an essential prerequisite.

S29. Symposium: conceptual and ethical issues in early diagnosis and treatment

S29.01

Separable developmental trajectories in schizophrenia from fetal period to acute illness

M.K. Isohanni [1], K. Ridler [2], J.M. Veijola [1], G. Murray [2], I. Isohanni [1], P.B. Jones [2]. [1] *Psychiatry Department, Oulu University, Oulu, Finland* [2] *Psychiatry Department, Cambridge University, Cambridge, UK*

Subtle developmental (motor, emotional, cognitive and behavioural) abnormalities are often present in individuals who later develop psychosis suggesting that some aspects of causation are established before overt psychosis. The main risk factors in the development of schizophrenic psychosis are genetic factors, pregnancy and delivery complications, slow neuromotor development, and deviant cognitive and academic performance. However, their effect size and predictive power are small, and the longitudinal trajectory of developmental factors can be difficult to tease apart.

Our aim was to examine the pre- and postmorbid life-span developmental trajectory for schizophrenia in a population-based cohort. Within the Northern Finland 1966 Birth Cohort we studied developmental pathways across diagnostic groups using developmental markers at birth, at ages 1, 16, and at age 31 (brain morphology, cognitive capacity, clinical status).

The main results were: the schizophrenia group achieved developmental milestones later and showed altered patterns of development over time when compared with non-psychotic controls. The pattern of associations between early development and post-onset cognition/brain morphology differed in various diagnostic groups. Furthermore, we have identified evidence of dysfunction in a distributed network involving a fronto-striatal-cerebellar circuit.

We conclude that the developmental trajectories in schizophrenia are distinctly different compared to controls. These findings emphasize the neurodevelopmental aspects and the value of longitudinal birth cohort studies.

S29.02

Early diagnosis in prepsychosis

T.K. Larsen. *Stavanger University Hospital, Psychiatric Clinic, Stavanger, Norway*

Introduction: During the last decade a number of studies have focused on early detection of psychosis. Some of these programmes are aimed at finding patients with psychosis as early as possible, others on primary prevention. For the time being we are witnessing a growing number of publications and presentations related to this topic. What kind of concepts is developed in order to describe people suffering from possible prepsychotic conditions? And how are concepts from general psychiatry used within this new field of research and clinical practise?

Methods: Based upon a literature review of publications related to early detection of psychosis, I will try to identify key concepts and discuss them critically with emphasis on how they are used and defined.

Results: Key concepts are; "prepsychosis; preschizophrenia; basic symptoms; at risk mental state; attenuated positive symptoms; brief limited intermittent psychotic symptoms (BLIPS); prodromal

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symptoms/syndromes; false positives; premorbid functioning; prevention; predictive power" etc. In general these concepts are used in a confusing manner. Some studies of primary prevention are probably including already psychotic people in prepsychosis groups. Many publications still use concepts that ought to be avoided. We suggest the new concept "hypopsychosis" as a usueful description of prepsychosis.

Conclusions: Early intervention in psychosis is a promising approach and it is very important that more research is carried out in order to understand what can be achieved through it. A more distinct set of concepts need to developed in order to clarify the ethical problems related to primary prevention.

S29.04

Rational and empirical factors in the formation of delusions and the transition to psychosis

M.R. Broome. *Institute of Psychiatry, London, UK*

In his important paper Campbell discusses both empirical and rational models of delusion formation. The empirical approach is characterized by the notion that a delusion is the rational response to some anomalous experience, and is hence termed by Campbell as 'bottom up'. The rational approach to studying the formation of delusions, by contrast sees delusion as 'a matter of top down disturbance in some fundamental beliefs of the subject'. This paper will present data from a cohort of subjects referred to the Outreach and Support in South London (OASIS) clinic at the Maudsley Hospital in London. This clinic was explicitly created to access clients who were in the prodrome of psychosis and as such exhibited the 'at risk mental state' (ARMS). In general, the ARMS clients demonstrate abnormalities that are consistent with the description of anomalous experiences but are necessarily not deluded (as they are all pre-psychotic). Further, despite not meeting formal criteria for a psychotic illness such as schizophrenia the ARMS clients share many abnormalities with those who have already experienced their first episode of psychosis. In conclusion, the work from OASIS, and from cognitive psychology and therapy more broadly, supports Campbell's conceptual analysis. Empirical factors are not sufficient for the genesis of delusions and the transition to psychosis. Further factors are essential and are what may change a non-helpseeker with odd experiences to someone who consults their family physician and is at risk of psychosis. Candidates that may account for such changes in rationality will be outlined.

S32. Symposium: serotonin and neuroplasticity: impact of genetics and environment

S32.01

The impact of the serotonergic system on adult neural stem cells derived from mouse hippocampus

J. Benninghoff [1,2], A. Gritti [1], A. Vescovi [1]. [1] *Institute for Stem Cell Research, DIBIT, Fond San Raffaele, Milan, Italy* [2] *Department of Psychiatry, LMU University of Munich, Munich, Germany*

Objective: The study was designed to examine the possible impact of serotonin on neurogenesis.

Methods: Primary cultures from adult mouse hippocampi were established. In our in vitro model, we cultured the neurospheres in serum-free medium containg b-FGF and EGF as growth factors. These stem/progenitor cells gave rise to differentiated neural cells such as astrocytes, oligodendrocytes and neurons.

Results: In vitro we were able to show that these cells produce serotonin and express key proteins of the serotonergic system, including tryptophan-hydroxylase (TPH), the decisive enzyme in serotonin production. In addition, we screened for 5-HT receptors and the serotonin transporter (5-HTT) by RT-PCR. While the progenitors are negative for 5-HTT, they express 5-HT1A and 5-HT2C receptors.

In a different set of experiments using the same in vitro model, we established neural stem cell lines from the hippocampus of 5-HTT KO mice in order to investigate the impact of 5-HT on proliferation. These animals represent an artificially hyperserotonergic environment, since available 5-HT is not taken back into the presynaptic neuron.

Conclusions: Taken together, our results make a case for the influence of serotonin and its various elements on the complex process of neurogenesis. Still, there is some caution necessary in the interpretation of the results. To our knowledge this is the first report on the existence of different elements of the serotonergic system on adult murine progenitors derived from hippocampus. In the future, further elucidating this process and looking for corresponding findings in humans may also lead to a refined treatment strategies.

S32.03

Genes related to 5-HT neurotransmission: regulation of expression by chronic social stress and citalopram

G. Flügge. *Clinical Neurobiology Laboratory, German Primate Center, Göttingen, Germany*

Changes in the serotonergic system are suspected to play a role in depression. In animal models of depression, stress is used to induce central nervous processes that lead to depressive-like symptoms. We quantified gene expression in the dorsal raphe nucleus (DRN) of male rats subjected to chronic social stress for 5 weeks, and in rats that were stressed and at the same time chronically treated with the SSRI citalopram (CIT; 4 weeks).

Using real time PCR and quantitative Western blotting we showed that CIT reverses stress-induced upregulation of synaptosomal associated protein-25 kDa and synaptic vesicle protein 2b possibly reflecting normalization of neurotransmission. Also stress-induced upregulation of tryptophan hydroxylase 2 (TPH-2) expression was reversed by CIT indicating restoration of normal 5-HT biosynthesis. Furthermore, CIT normalized stress-induced upregulation of CREB-binding protein, a stress-target gene mediating effects on transcription. However, expression of 5-HT transporter and 5-HT1A autoreceptor, did not significantly differ from controls after 5 weeks of social stress, but CIT reduced 5-HT1A mRNA in the DRN of stressed animals indicating complex negative feed-back actions when 5-HT reuptake is blocked.

In conclusion, chronic stress leads to significant changes in expression of genes related to neurotransmission/neuroplasticity in the DRN and CIT normalizes their expression. Supported by DFG Research Center Molecular Physiology of the Brain (CMPB).

S32.04

Genetic variants of the serotonin system and limbic structures in psychiatric disorders

T. Zetzsche, T. Frodl, U. Preuss, B. Bondy, G. Schmitt, N. Koutsouleris, H-J. Möller, E.M. Meisenzahl. *Department of Psychiatry, Ludwig-Maximilians University, Munich, Germany*

Objective: Borderline personality disorder (BPD) is associated with a spectrum of symptoms, including affective disturbances. Structural

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brain abnormalities of the limbic system and the prefrontal cortex of BPD patients have been described (Driessen et al., 2000; Schmahl et al., 2003; Tebartz van Elst et al., 2003). The aim of our study was to examine possible relationships between brain structure and genetic variants of 5-HT receptors and the 5-HT transporter in BPD patients.

Methods: In this study 25 patients with BPD and 25 age-matched controls were enrolled. Diagnoses were made according to DSM IV criteria. MRI images were obtained (1.5 Tesla Magnetom Vision, Siemens) using a coronal T2 and protondensity-weighted dual-echo sequence. Brain volumetry was performed by using the segmentation software program BRAINS. The hippocampus and the amygdala were delineated as regions of interest. Genetic analysis of polymorphisms of 5-HT receptors and 5-HT transporter were performed.

Results: In BPD patients a significant reduction of hippocampal volume was found. BPD patients with co-morbid major depression (MDE) showed a significant larger amygdala volume compared to those without co-morbid MDE. Amygdala volumes of BPD patients, but not those of controls showed significant correlations with a polymorphism of the 5-HT1a receptor.

Conclusions: The results indicate that brain genomics may be a valuable tool to elucidate some aspects of the pathogenesis of BPD and eventually of other psychiatric disorders.

S11. Symposium: eunomia: a multinational research project on coercive treatment

S11.01

Clinical and social outcome of coercive treatment

L. Kjellin. *Psychiatric Research Centre, Örebro, Sweden*

Objective: To compare clinical and social outcome of psychiatric treatment of legally involuntarily admitted patients, and of voluntarily admitted patients who feel coerced to admission, across the EUNOMIA study sites.

Method: Consecutive samples of patients at 12 study sites across Europe are assessed within 10 days from admission, with follow-up assessments at 4 weeks and 3 months. Main outcome measures are Brief Psychiatric Rating Scale (BPRS), Global Assessment of Functioning Scale (GAFS), Clients' scale for Assessment of Treatment (CAT), Manchester Short Assessment of Quality of Life (MANSA), and items covering general pressures to adhere to treatment. Data collection will continue until March, 2006. The aim is to include from each participating centre complete data sets of 140 legally involuntarily admitted patients and 40 voluntarily admitted patients who feel coerced to admission according to the MacArthur Perceived Coercion Scale (MPCS).

Results and conclusion: Preliminary results and conclusions regarding outcome in terms of psychiatric symptoms, functioning, patient satisfaction and quality of life will be presented.

S11.02

Comparison of the clinical use of individual coercive measures during hospitalisation across the eunomia study sites

J. Raboch [1], T.W. Kallert [2], G. Onchev [3], Z. Solomon [4], A. Karastergiou [5], M. Maj [6], A. Dembinskas [7], A. Kiejna [8], S. Priebe [9], P. Nawka [10]. *[1] Psychiatric Department, 1st Medical School of Charles University, Prague, Czech Republic [2] Department of Psychiatry and Psychotherapy, University of Dresden, Germany [3] Department of Psychiatry, University of Sofia, Bulgaria [4] School of Social Work, Tel-Aviv University, Tel-Aviv, Israel [5] Psychiatric Hospital of Thessaloniki, Thessaloniki, Greece [6] Department of Psychiatry, University of Naples, Naples, Italy [7] Clinic of Psychiatry, Faculty of Medicine, Vilnius University, Vilnius, Lithuania [8] Department of Psychiatry, University of Wroclaw, Wroclaw, Poland [9] Unit for Social and Community Psychiatry, Newham Centre for Mental Health, London, UK [10] Psychiatrica Nemocnica, Michalovce, Slovak Republic*

Applying coercive measures to mentally ill people is and will still be inevitable in order to avoid harm to patients themselves as well as to public. However, it should be a modality of utmost crisis intervention. Different cultural or legal traditions, general attitudes towards mentally ill, and the structure and quality of mental health care systems influence the type and frequency of this action. In our EUNOMIA project we assessed which coercive treatment measures were applied to two subgroups: legally involuntarily admitted patients and legally voluntarily admitted patients who feel coerced to admission. Coercive measures were defined as follows: seclusion is the involuntary placement of an individual alone in a locked room; restraint is the fixation of at least one of the patient's limbs by a mechanical appliance; forced medication is restricted in this definition to activities, which use restraint OR high psychological pressure to administer medication (non-oral or oral intake) against the patient's will. We present preliminary data from 10 study centres comprising 976 involuntarily admitted patients (average age 38.9 years, 56.1% males). The most frequent diagnoses were schizophrenia (59.0%), affective disorders (17.3%) and drug abuse and addiction (11.2%). The main causes for involuntary treatment were aggression against others (67.8%), life threatening behaviour (55.2%) and auto-aggression (39.0%). Forced medication was used in 57.5% of cases, restraint measures in 38.0% and seclusion in 4.5%. Typical antipsychotics were the treatment of choice (59.5%), especially haloperidol (29.5%). Atypical antipsychotics were used only marginally. There were vast differences among individual centres.

S11.03

Coercive means in psychiatry: legal view across Europe

F. Torres-González. *Psychiatry at University of Granada, Granada, Spain*

Objective: To review all national regulations concerning coercive measures in psychiatric admission care in 12 European countries.

Method: Legal experts have compiled national information on the legal background of coercive care and submitted written reports to the EUNOMIA-steering committee.

Results: Psychiatric coercive means regulation in Europe has been influenced by: new geopolitical configuration after 1989, variety of internal political structures (unitary – federal), and specific dissimilarity in legal psychiatric matter. The main international treaties on the matter have been widely accepted.

Conclusion: All countries use criminal and civil admissions. Criminal admission appears regulated in the penal and penitentiary legislations in all countries. A plurality of regulating systems of involuntary civil admission and lack of normative development related to coercive measure as a different subject from the non-voluntary admission exist. There is scarce existence of jurisprudential doctrine, due to the lack of capacity in superior bodies or to the few demands presented. Scarce validity of medical protocols indicates that they are not subject to juridical supervision. Heterogeneous scarcely effective control systems for coercive measures need to be improved and homogenized up to a cross-national standard.

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S11.04

Comparison of socio-demographic and clinical characteristics of a) legally involuntarily admitted patients and b) of legally voluntarily admitted patients who feel coerced to admission across the eunomia study sites

T.W. Kallert. *Department of Psychiatry and Psychotherapy, Dresden University of Technology, Dresden, Germany*

Objective: Previous research has shown a specific profile of risk factors characterizing patients who are legally involuntarily admitted to psychiatric hospitals: younger age, diagnosis of psychotic disorder and/or mental retardation, manic symptoms, and male gender and/or non-Caucasian ethnicity.

Method: The naturalistic and epidemiologically oriented EUNOMIA-study design in 13 sites in 12 European countries uses a standardized battery of instruments (e.g. psychopathology, legal status, perceived coercion, satisfaction with treatment) to assess two groups of patients at three time-points within a 3-month follow-up period: legally involuntarily admitted patients (aimed at figure of complete cases in each centre: $N = 140$) and legally voluntarily admitted patients who feel coerced to admission (aimed at figure in each centre: $N = 40$).

Results: This preliminary analysis will use ca. 1200–1500 patients included in the first 18 months of recruitment and outline differences between the two subgroups of patients focusing on the initial assessment within the first week after hospital admission covering their socio-demographic and clinical characteristics, legal status, perceived coercion and satisfaction with treatment.

Conclusion: Results are embedded in standardized information on mental health care systems in the participating catchment areas. In particular, consequences for clinical practice of involuntary hospital admissions across Europe will be demonstrated.

S11.05

Relatives' views on involuntary hospital admission in eight European countries

A. Fiorillo [1], C. De Rosa [1], C. Avino [1], G. Figliolia [1], F. Rossano [1], L. Magliano [1], M. Maj [1], T.W. Kallert [2], G. Onchev [3], J. Raboch [4], A. Karastergiou [5], A. Kiejna [6], P. Nawka [7], L. Kjellin [8]. *[1] Department of Psychiatry, University of Naples SUN, Naples, Italy [2] Department of Psychiatry and Psychotherapy, University of Dresden, Germany [3] Department of Psychiatry, University of Sofia, Bulgaria [4] Department of Psychiatry, University of Prague, Czech Republic [5] Psychiatric Hospital of Thessaloniki, Greece [6] Department of Psychiatry, University of Wroclaw, Poland [7] Psychiatrica Nemocnica, Michalovce, Slovakia [8] Psychiatric Research Centre, Örebro, Sweden*

Objectives: This study aims to: a) describe the opinions of relatives of mentally ill patients about treatments and procedures adopted during a psychiatric admission; b) explore differences in the opinions among relatives living in eight different European countries.

Methods: Data are being collected on a sample of relatives of patients involuntarily hospitalized in eight European countries (Germany, Bulgaria, Czech Republic, Greece, Italy, Poland, Slovakia, Sweden) from the EUNOMIA network. Relatives' opinions on treatments and procedures received by their mentally ill relatives during the reference hospitalization's period have be explored by ad-hoc schedules.

Results: Relatives were overall satisfied with treatment provided to the patients during the current hospitalization. Significant differences have been detected among the centres as concerns pressure perceived by relatives at patients' admission, satisfaction with treatments received by patients during the current hospitalization and opinions about the utility of psychiatric treatments and procedures to be adopted in emergencies. In particular, relatives from Sofia reported the highest levels of pressure at patients' admission, and those living in Italy largely disagreed with the possibility to admit psychiatric patients in asylums (as forbidden in Italy since 1978).

Conclusions: The differences in the relatives' opinions found in this study are likely to be influenced by cultural factors and national mental health policies. These differences should be taken into account in the development of European guidelines on psychiatric treatments.

S42. Young psychiatrists symposium: new challenges for young psychiatrists in Europe: management in psychiatry

S42.02

Psychiatry meets training: are management skills necessary for trainees and young psychiatrists?

I.T. Calliess. *Medical School Of Hannover, Hannover, Germany*

This symposium will be highlighting new challenges for young psychiatrists in Europe. What are new challenges for young psychiatrists? In times of a unifying world with rapid changes of several subsystems of society such as health, communication, ethics, politics and economics, the way our mental health care system works is questioned every day. Not only is psychiatry mirroring the problems resulting from societal development. Psychiatry and mental health care are, at the same time, part of the changing health care system itself. in this respect psychiatry is exposed to and interconnnected with changes in the other societal subsystems like communication, ethics, politics and economics. This has tremendous impact on the question of how psychiatric training should like in the 21st century and what core competencies are for the young psychiatrist today. The symposium will cover on the one hand the area of modern mental health care approaches and on the other the area of change management in psychiatry. Different models of clinical patient management will be discussed. The situation of change management in psychiatry will be analyzed. What can we learn from the leaders in psychiatry? The leading question of the symposium will be what necessary skills and competencies for young psychiatrists are today and how this is reflected in the curricula for training in psychiatry.

S10. Symposium: why are the mentally ill being re-institutionalised in forensic hospitals?

S10.01

Violent patients and modern mental health care or the incompetence to learn by experience

H. Schanda. *Justizanstalt Göllersdorf and Psychiatric University Clinic, Vienna, Austria*

Humanism, rejection of a "paternalistic" ideology and progress in pharmacological research provided the basis for the introduction of psychiatry reforms during the second half of the 20th century. Their principal aims were more or less identical everywhere: downsizing of mental hospitals, integration of the mentally ill into the community, strengthening of their civil rights, and, not least, reduction of the old, ill-fated prejudices, mainly with respect to dangerousness and violence.

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However, in many countries, the enthusiasm of the first years has been replaced by disillusionment, mainly with respect to a subgroup of severely and chronically ill psychotic patients without compliance and with high rates of comorbid substance abuse. Regardless of internationally different preconditions concerning crime rates, rates of substance abuse and access to health services, these patients are not only at a higher risk to end up in poverty and homelessness, they also exhibit an increased risk to commit illegal acts.

By means of data from Austria it can be shown that none of the usually blamed factors (bed closure, insufficient provision of outpatient services, narrow criteria for involuntary admission to mental hospitals) can be made responsible by its own for the problems described. Rather, they are supposed to be a consequence of the changed attitude of mental health professionals towards severely ill high-risk patients whose needs are only insufficiently met by modern mental health care. This led to an increasing shift of "difficult" (but not in every case extremely dangerous) patients from general to forensic psychiatry.

S10.02

The increasing number of forensic patients in Denmark 1980–2004

P. Kramp. *Denmark*

Introduction: In Denmark the number of forensic patients increased exponentially 1980–1999 with an annual growth rate of 6.8%. In 2000 some psychiatric orders became timelimited. This study maps out the development 2000–2004.

Material and methods: The material includes forensic patients under supervision by a probation officer. The Department of Prisons and Probation has since 1977 registered prevalence, since 1989 also incidence and the lifting of previously established orders. The monthly prevalence is analysed 1980–2004, the monthly incidence 1989–2004.

Results: The incidence increased exponentially 2002–2004 with an annual growth rate of 12.8%. The whole period 1989–2004 shows a constant increasing growth rate ($P < 0.001$). The prevalence 2002–2004 shows an annual growth rate of 11.0%. The difference between growth rates of incidence and prevalence 2002–2004 is not significant. Thus the number of forensic patients is now increasing exponentially with an annual growth rate of 11%.

Conclusion: Increasing criminality among schizophrenic patients has been established in many countries. The main reason is supposed to be deinstitutionalization. Today forensic patients occupies around 20% of the total number of psychiatric beds in Denmark, and this fact in combination with a decreasing number of beds point towards a disastrous development for the mentally ill.

S10.03

Comparisons of patients and outcome in general adult and forensic service

S. Hodgins. *Forensic Mental Health Science, Institute of Psychiatry, London, UK*

In recent years, the number of forensic beds has dramatically increased in several European countries. This presentation will present data that explain, at least in part, this increase in forensic beds. As most forensic beds are filled with persons who have a primary diagnosis of schizophrenia, the presentation will focus on studies of persons with schizophrenia. Prior to admission to forensic services, most patients have spent many years in and out of general adult psychiatric services. During this time, they have committed many criminal offences and have not been provided with treatments specifically designed to reduce their antisocial and criminal behaviours. However, we have recently shown that after treatment in forensic hospitals and during the subsequent 2 years, they show lower levels of symptoms and less aggressive behaviour than a matched sample of patients with schizophrenia discharged from general adult services. These findings indicate that even high risk patients can be successfully treated and managed in the community. Studies of patients with schizophrenia in general adult wards indicate that as many as one-in-two of the men and 20% of the women are committing criminal offences, engaging in aggressive behaviour towards others, and being victimised by others but that they are not being offered interventions to prevent further violence. Among those with schizophrenia who offend are several distinct sub-groups defined by age at onset of antisocial behaviour and persistence. Each sub-type requires different packages of interventions and management strategies to prevent criminality.

S10.04

What can general psychiatry learn from forensic psychiatry?

R. Müller-Isberner. *Haina Forensic Psychiatric Hospital, Haina, Germany*

Problem: In several European countries the number of forensic beds is increasing. Cause: It has been proposed that the reduction of beds in general psychiatric services accompanied by tolerance of non-compliance with medication, substance abuse, and antisocial behaviour has lead to this increase.

Forensic patients: Patients admitted to forensic hospitals are characterized by a long history of mental health problems, substance abuse, anti-social personality traits, violence, and crime.

Procedures in forensic psychiatry: In order to meet the complex treatment needs of mentally disordered offenders forensic hospitals have implemented treatment components which address each of the multiple problems presented by their patients.

Outcome: Assertive and comprehensive long-term approaches targeting all Axes I and II disorders and other correlates of violence and crime have reduced the rate of re-offending even in high-risk populations. To maintain treatment successes, in many cases, it is necessary to discharge these patients into pro-social environments. Furthermore, legal powers to ensure compliance with all aspects of treatment once the patient is discharged into the community have proven to be a key factor in reducing re-offending. What can general psychiatry learn from forensic psychiatry? Elements of assertive, multi-component treatment programs which have been shown to be effective in forensic settings should be adopted by general psychiatry and applied to those patients at risk of becoming a forensic patient. Legal changes allowing involuntary treatment of non-compliant high risk patients seem to be necessary. This might be a way to prevent further increases in the numbers of forensic beds.

S09. Symposium: personality disorder, emotion regulation and aggressive behaviour

S09.01

Axis 1 and axis 2 psychopathology and legal prognosis

N. Nedopil, C. Stadtland. *Department of Forensic Psychiatry, Psychiatric Hospital of the University, Munich, Germany*

In a follow up study of 487 perpetrators assessed for criminal responsibility in the years 1975–1994 outcome concerning criminal recidivism was evaluated using the files of the German reconviction registry in the years 2002–2004. From the extensive files disorders could

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be rediagnosed according to ICD-10 and DSM-IV and current instruments for risk assessment could be filled out. Seventy-seven individuals received the diagnosis of a personality disorder as primary diagnosis, one third of them comorbid with a substance related disorder. One hundred and twelve had substance related disorders. Compared to the total sample personality disorders showed a considerably higher the rate of recidivism as well for all crimes as for violent crimes (personality disorders:51% vs. total sample: 39% for all crimes; 22% vs. 12% for violent crimes, Odds-ratio: 1.8). Although cluster B personality disorders were significantly more often diagnosed in the sample and more often found among the recidivists, with antisocial personality disorder being the most frequent diagnosis in both groups, all personality disorders were found in the sample of criminal offenders, i.e. no personality disorder appeared to be a good protective factor against criminal offences. 48 individuals were schizophrenic, 31 had an affective disorder and 20 a organic disorder. The odds ratio for violent crimes was 0.33 in schizophrenics, 0.4 in affective disorders, but 2.2 in organic disorders. The impact of personality traits on recidivism will be discussed with special reference to the different factors (and factor structures) of the PCL-R, which showed quite ambiguous results.

S09.02

Development and neurobiology of psychopathy and antisocial personality disorder: implications for treatment

S. Hodgins. *Forensic Mental Health Science, Institute of Psychiatry, London, UK*

Approximately 5% of males commit 70% of all crimes of violence. These males are characterized by conduct problems from a very early age that escalate in severity over-time leading to persistent offending in adulthood. This population includes a small group who in addition to early-onset and stable antisocial behaviour are characterized by the traits of psychopathy. Among children with conduct problems a sub-group can be identified who show callous-unemotional traits that are thought to be the early manifestations of the traits of psychopathy. Compared to other children with conduct problems, those with callous-unemotional traits show many of the characteristics of the adult psychopath including more serious and frequent conduct problems that progress to violent crime in adolescence, an insensitivity to punishment, difficulty in modifying behaviour that has been rewarded, low anxiety, a failure to recognize fearful and sad faces, and better verbal skills. Behavioural genetic studies indicate that while genes confer a vulnerability for this early-onset stable pattern of antisocial behaviour, the genetic contribution is much greater in the sub-type who also present callous-emotional traits. Many of the recent studies of brain structure and function in adult offenders have failed to characterize subjects into these two sub-types thereby limiting the usefulness of the findings. Yet, the evidence from adults and children suggest that the neurobiological bases of persistent violent offending among men with psychopathy and Antisocial Personality Disorder are distinct. This implies that as children and as adults, they require very different kinds of interventions to prevent violent behaviour.

S09.03

Developmental sequence from conduct disorder in childhood to adult antisocial personality disorder

B. Herpertz-Dahlmann, T. Vloet. *Department of Child and Adolescent Psychiatry and Psychotherapy, University Hospital, Aachen, Germany*

Conduct disorders are among the most common problems in children and adolescents referred for mental health intervention. Criminal offending and delinquency in youth are strongly on the rise in Western countries. This review presents recent findings on risk factors for the origins and maintenance of conduct problems in childhood and adolescence. It tries to elucidate how biological and social processes interact and how conduct disorder in childhood may proceed to antisocial personality disorder. Two types of antisocial behavior are differentiated:

a) life course persistent offenders with antisocial behavior beginning in childhood and worsens continously thereafter versus;

b) adolescent limited antisocial behavior which starts in adolescence and finishes in young adulthood.

The concept of psychopathy in childhood often associated with early beginning of antisocial behavior will be discussed. In addition we intend to point out the growing evidence for the importance of somatic markers like autonomic underarousal and orbitofrontal cortex dysfunction for the development of childhood antisocial behavior.

S09.04

Antagonistic effects of testosterone on fear and anger: implications for antisocial behavior

J. Van Honk, E.J. Hermans, P. Putman, D.J.L.G. Schutter. *Affective Neuroscience Section, Helmholtz Institute/Utrecht University, Utrecht, The Netherlands*

Background: Antisocial behavior is a major threat for individuals and society. It is most frequently observed as impulsive aggression in antisocial personality disorder, but can reach unrestrained levels in the psychopath who's lack of fear and empathy adds instrumental aggression to the repertoire of evil. Interestingly, compared to males, females have much lower levels of testosterone, display less aggression and are more fearful. However, until recently experimental evidence for antagonistic effects of testosterone on fear and aggression largely stemmed from rodent research. Generalization to humans may be problematic, because social aggression in rodent social systems is an important adaptation while in humans the aggressive social interaction seems to have evolved into a ritualized challenge based on gestures and displays. Facial expressions in particular hold signaling properties that can protect and control humans both on the individual and the social level.

Method: In an attempt to bridge the species and the gender gap we performed series of placebo-controlled testosterone administration studies wherein the testosterone levels of females were temporarily elevated to equal those of males. Afterwards, facial expressions were presented—in implicit and explicit fashions—in behavioural, psycho-physiological, electrophysiological and functional neuroimaging designs.

Results: These empirical studies reveal that testosterone reduces fearfulness and elevates proneness for aggression in humans.

Discussion: Testosterone may, by augmenting both impulsive and instrumental aggression, mediate the gender difference observed in antisocial behavior.

S09.05

Neurobiological markers of affect regulation in antisocial personality disorder

S.C. Herpertz, G. Domes. *Department of Psychiatry and Psychotherapy, Rostock University, Rostock, Germany*

The capability to regulate emotions for the benefit of adaptive social behavior is thought to comprise emotional processing, emotional reagibility and more or less complex cognitive regulatory strategies. Individuals with antisocial personality disorder are usually characterized by emotional dysregulation, however, from a psychopathological perspective there are two subtypes: in emotionally hyperreagible (borderline-like) subjects distinct

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emotions of anger or fear trigger reactive aggression, whereas in emotionally hyporeagible, psychopathic individuals a lack of distinct emotions of fear of punishment or empathy with the victim is associated with predominantly proactive aggression. There is an increasing amount of evidence that these subtypes of antisocial personality disorder are characterized by specific differences in neurobiological functioning. An overview on data from neuroimaging and neurophysiology will be presented.

W15. Workshop: European guidelines on privacy and confidentiality in healthcare

W15

European guidelines on privacy and confidentiality in healthcare

R.J. McClelland [1], E. Mordini [2]. [1] *Queen's University Belfast, Belfast, Northern Ireland, UK* [2] *Institute of Bioethics, Rome, Italy*

Introduction: Confidentiality is core to the effective working of the health encounter between a service user and a healthcare practitioner. Central is the sanctity of the doctor-patient relationship both in its own right and also in the public interest. There is nevertheless a tension between the needs for information, for example to optimise clinical care, and the expectation of patients that information about them will be kept confidential.

Workshop objectives: There are two principal objectives for the workshop:

To review and discuss with Congress delegates new European standards on confidentiality and privacy in healthcare prepared by the EuroSOCAP project. To provide an opportunity to contribute to the dissemination and uptake of these new standards.

The EuroSOCAP project: The purpose of the EuroSOCAP project (The Development of European Standards on Confidentiality and Privacy in Healthcare among Vulnerable Patient Populations) has been to address the challenges and tensions created in the healthcare sector between the anticipated scenarios of the user friendly information society and the fundamental ethical requirements of privacy and confidentiality of healthcare information.

The aim is to provide a knowledge base, a set of standards and guidelines which will inform professional practice, supporting practice as well as protecting patients, throughout the healthcare sector of the European community. Particular attention has been paid to the requirements of vulnerable patient populations.

W14. Workshop: chronic depressions: an update on diagnosis and treatment

W14

Chronic depression: an update on diagnosis and treatment

J. Spijker. *Renkum, The Netherlands*

Introduction: Chronic depressions pose an important health care problem. Nearby 25–35% of the depressed patients are chronically depressed with a duration of illness exceeding 2 years. Moreover, dysthymia has a high prevalence, especially in general practice and the combination of dysthymia with a superimposed depressive disorder (double depression) is frequent. Chronic depressions are highly comorbid with anxiety disorders, alcohol or substance abuse, personality disorders and medical conditions and cause serious limitations in functioning.

Psychotherapy with chronic depressions seemed to be effective but recent research proved that new forms of psychotherapy sometimes in combination with medication are indeed efficacious. The evidence for cognitive therapy, interpersonal therapy and cognitive behavioural-analysis system of psychotherapy (CBASP) will be discussed.

In many cases treatment for chronic depressions does not end with the recovery of the patient. Presence of residual symptoms or insufficient functioning predispose to relapse and recurrence. Treatment should address these problems for substantial time, even years. However, evidence for effective treatment programs for continuation therapy for chronic depression is lacking. Most research has focussed on the recurrent depressions and not on chronic depression.

The focus of the lecture will be the various strategies that have been developed in the mood disorder clinic in Amsterdam to prevent relapse and recurrence in chronic depression. One of these strategies is a combination of ongoing psycho-education, antidepressive medication and enhancement of social role-functioning.

W16. Workshop: ethics of involuntary treatment: the challenges for the future

W16

Ethics of involuntary treatment: the challenges for the future

P. Cosyns. *Antwerp, Belgium*

According to the Declaration of Madrid (WPA 1996, revised 2005) no treatment should be provided against the patient's will, unless withholding treatment would endanger the life of the patient and/or those who surround him or her. It stipulates that treatment must always be in the best interest of the patient.

We view coercion in term of degree and source, along a continuum between voluntary and involuntary treatments. Mental health care shifts from the hospital to the community, and we witness a growing trend toward outpatient commitment orders.

An involuntary treatment can be morally justified when initial coercion lead to a greater freedom and restores the capacity of the patient to exercise proper judgment. The Council of Europe adopted on 22 September 2004 a Draft Recommendation and Draft Explanatory Report on this topic.

We see in some European countries a trend of increase in compulsory hospitalizations and sometimes physical constraints, despite a good ratio of psychiatrists per 100,000 inhabitants and comfortable budgets. In the developing countries we witness a growing trend toward more concern about human rights of mental patients.

Clinical and ethical guidelines (criteria, principles and procedure) of involuntary treatment, even constraint and seclusion will be discussed.

W03. Workshop: the non-verbal parameters a new field in psychiatry

W03

The non verbal parameters a new field in psychiatry

V. Enatescu [1], A. Mihai [2], M. Lazarescu [3], V.R. Enatescu [3]. [1] *County Hospital, Department of Psychiatry, Satu Mare* [2] *University of Medicine and Pharmacy/Clinic of Psychiatry, Targu Mures*

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We have the experience of 30 years of objectivization, analog–digital translation, automatic processing, graphical representation, pattern recognizing for the dynamic of the human gait, the patterns of the gesture models, variations of dynamic of the writing and of the physical pattern of the voice, applied in psychiatry.

The instruments we used are: original traductors, systems of calculation and programming belonging to the artificial intelligence which create new pattern of representation of the gait, gesture, sonorous background of the speech, the dynamic of the writing which can be represented or through a matrix or in a n-dimensional space on specific clusters or to some human typology or psychical disorders.

There is the chance for a new semiology which has objective paraclinic value for psychiatry field of automate analyses, nonverbal behavior parameters named by us "Extraverbale Analysis".

Handwriting's pathography in psychiatry is very consistent especially during the classical psychiatry period, when the lack of paraclinic diagnostic tools imposed to extend the investigations to objective elements of diagnostic. The pathology of non-verbal expression includes several studied elements within clinic semiology of expression. But all acquired knowledge has the deficiency of subjective descriptive and metaphoric describing, without a precise determination of objective parameters which could be accessible to automatic processing on computer with a bigger volume of data which can make them efficient in clinical practice and research.

We present techniques of objectivisation resulted till now and future possibilities of using them. The workshop wants to be an opening to this new objective domain.

W07. Workshop: contemporary views on homosexuality and psychiatry

W07

Contemporary views on homosexuality and psychiatry

G.A. Nakajima [1], R.P. Cabaj [2], G.F. Glass [3], D.K. Lin [4]. [1] *Csp* [2] *Comunity Behavioral Health Services, San Francisco, CA, USA* [3] *Private Practice, New York, NY, USA* [4] *California Pacific Medical Center, San Francisco, CA, USA*

This workshop will explore special concerns in the management of lesbian, gay, bisexual, and transgender (LGBT) psychiatric patients. Dr. Lin will discuss sensitivity in history taking and consider nuances in psychopharmacological and psychotherapeutic treatments. A biopsychosocial approach to LGBT patients will be integrated in the discussion Dr. Glass will speak about group psychotherapy for gay men, who are still marginalized by society and lack models for socialization. Dr. Glass will provide a rationale for treating gay men in homogeneous, gay-affirmative groups and will discuss technical and special issues like HIV-positive group members. Dr. Cabaj will provide an overview—30 years of progress on LGBT issues—what we know and what we need to know. As more information about LGBT people becomes available to the public, clinical information about evidence-based treatments expands as well. The importance of research and clinical experience will be discussed. Dr. Nakajima will discuss how the diagnosis of homosexuality has changed in the DSM and ICD. There have been major inconsistencies between ICD 10 and DSM III-R and IV, with the inclusion of egodystonic sexual orientation, sexual maturation disorder, and other diagnoses in ICD-10. The damaging effect of these unscientific diagnoses and the need to remove them from ICD 11 will be discussed.

CS03. Core symposium: advances in understanding and treating alcoholism

CS03.01

Neuroimaging and pharmacotherapy of alcoholism

K.F. Mann. *Department of Addictive Behavior & Addiction Medicine, University of Heidelberg, Central Institute of Mental Health, Mannheim, Germany*

Neuroimaging has provided insights into the development, maintenance and consequences of alcohol dependence. Structural imaging such as CAT scans and MRI clearly show differences between alcoholics and healthy controls and were able to elucidate special effects e.g. of age and gender. With MR-spectroscopy an analysis of molecular underpinnings is possible. Functional imaging such as fMRI and PET have recently gained interest in alcohol research. Motivational and emotional processes potentially leading to relapse could be identified. Examples such as an increased bold response to specific stimuli in the nucleus accumbens and putamen area as well as PET scans of μ-opioid receptors will be given. The combination of functional neuroimaging with genetics seems to hold great potential for better understanding basic differences in human behaviour between the addicted and the normal brain.

Pharmacological relapse prevention in alcoholics is currently based on two medications: acamprosate and naltrexone. The therapeutic potential of other medications such as topiramate, galantamine and rimonabant will be discussed.

Concerning the combined treatment with acamprosate and naltrexone Kiefer et al. (2003) found an additive effect if both drugs were combined. His results are further tested in a large US trial (COMBINE Study). The next step would be to identify potential responders of acamprosate or naltrexone a priori. This is currently underway including the use of f-MRI in monitoring medication effects over time (Project PREDICT).

CS03.02

Early recognition and motivational strategies

M. Reynaud. *Hôpital Universitaire Paul Brousse, Villejuif, France*

New datas are first concerning the clarification of alcohol misuses (risky, harmful use ICD10 or abuse CIM10, dependence) and the different ways of diagnosis and treatment for each stade. Early identification must be supported by validated clinical and biological methods : as the CAGE and AUDIT tests and for markers the GGT, the CDT and their association. The third point is the better knowledge of factors of vulnerability and resistance to onset of dependence and we have to systematically investigate them.

For treatment although simple strategies as motivational interview and brief intervention therapies exist that are validated and cheap, they are not known by most of practitioners. It would certainly be useful to evaluate the efficacy of pharmacotherapies in this early stage. It may reasonably be expected that such therapy would prove efficiency than in dependence.

And to conclude an appropriate organisation of care, really organised in networks, with possibilities of graduated, co-ordinated responses facilitates identification and early care.

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CS03.03

Neurobiology of alcohol addiction

F. Kiefer. *Department of Addictive Behavior and Addiction Medicine, Central Institute of Mental Health (CIMH), Mannheim, University of Heidelberg, Mannheim, Gerrmany*

Introduction: Addictive behaviour associated with alcoholism is a brain disease characterized by craving for alcohol, loss of control over consumption, development of tolerance and dependence, while simultaneously the repertoire of social functioning not related to intake behaviour declines dramatically.

To understand the factors that compel some individuals to drink excessively, alcohol research has focused on the identification of brain mechanisms that support reinforcing actions of alcohol and the progression of changes in neural function induced by chronic ethanol consumption.

Method: Review of published evidence.

Results: Prospective studies on high risk populations showed an increased vulnerability of subjects with high tolerance for adverse effects of ethanol. Cellular and molecular mechanisms of tolerance, sensitization, and dependence have been investigated intensively. They have come far from the suggestion of considering ethanol as a "modifier of membrane fluidity." The ability of ethanol to enhance dopamine neurotransmission particularly within the meso-corticolimbic dopamine ("reward") system was demonstrated repeatedly. However, the past decade has placed the dopamine system within a broader context of neuronal circuitry involved in drug seeking, drug taking, and recovery. Specific effects of ethanol on GABA-A and NMDA receptors provide particular challenges given the almost ubiquitous expression of these receptors throughout the CNS. Additionally, new emphasis on various neuropeptide systems has reemerged, including opioid peptides and the stress-related peptides of the hypothalamus–pituitary–adrenal axis.

Conclusion: Continued research is warranted to identify the various neurobiological based components of the "spiraling distress-addiction cycle" (Kreek and Koob, 1998) that underlies the transition from alcohol intake to alcohol addiction.

CS03.04

Psychological interventions and alcohol policy

I.B. Crome. *Academic Psychiatry Unit, Keele University Medical School, Stoke on Trent, UK*

Initially this presentation will outline the range of psychological interventions for alcohol problems. Following a brief historical introduction, details of the effectiveness and cost-effectiveness of treatments for alcohol disorders will be discussed. Results of multicentre trials including Project MATCH and the United Kingdom Alcohol Treatment Trial will be highlighted and critically appraised in the context of several recent UK policy initiatives such as 'Calling Time', the National Alcohol Harm Reduction Strategy and Scotland's Plan for Action on Alcohol Problems. The inter-relationship between pharmacological treatment and psychological treatments will be explored on the backdrop of, amongst others, the British Association of Psychopharmacology's 2004 consensus statement on the treatment of substance misuse, addiction and comorbidity, and the COMBINE study.

By drawing historical, descriptive, evidence-based and policy themes, a debate the implications for practice and future research may be instigated.

S36. Symposium: ADHD and comorbid disorders

S36.01

The wish to die and the wish to commit suicide in the adolescent: two different matters?

S. Tyano [1], I. Manor [1], M. Vincent [2]. [1] *Sackler Faculty of Medicine, Tel-Aviv University, Tel-Aviv, Israel* [2]*Centre Alfred Binet, Paris, France*

We shall try to demonstrate the difference between the wish to die and the wish to commit suicide as they express themselves during adolescence. First, death is seen as irreversible, while the suicidal act, at least during adolescence, is seen as reversible. While thoughts of suicide may be a part of normal adolescence, and the suicidal act a manifestation of pathological development specific to this stage in life, the wish to die has no age restrictions and may accompany life as a shadow, devoid of any suicidal act, for many years. It should be noted that both of these wishes may be balanced with the wish to live. The pathology appears when there is an imbalance of wishes and abnormal developmental processes. This imbalance can result in two distinct activities: suicidal acts and death behaviors. We suggest that suicidal acts stem from different mechanisms and personality pathologies than the behaviors connected to the death wish. Therefore, they should be evaluated separately in order to better understand differences between suicidal and other aggressive acts and manifestations of the death wishes during adolescence.

S36.02

Drug induced mania in children with ADHD

T. Wolanczyk. *Department of Child Psychiatry, Medical University of Warsaw, Warsaw, Poland*

Mania and bipolar disorder are increasingly diagnosed in children and adolescents with ADHD. The differences in prevalence of bipolar disorders in children may reflect differences in diagnostic systems and attitudes of psychiatrist but also differences in use of psychotropic medication. It have been also suggested, that in children with "bipolar phenotype", the use of antidepressants and stimulants may advance the onset of bipolar disorder.

Given that almost all drugs for ADHD may precipitate mania, it seem reasonable to discuss data concerning drug induced mania and mania-like symptoms in ADHD population.

Stimulant drugs were not on the market in Poland until 2005. The drugs of choice for treating ADHD were tricyclic antidepressants (TCA) and clonidine. Taking into consideration, that antidepressants may double or triple the risk of manic episode, it seems reasonable to asses the prevalence of drug induced manic episodes in ADHD children treated with TCA's.

In our sample of 247 children diagnosed with ADHD consecutively admitted to our outpatient department, 60% were treated with TCA's. Manic or hypomanic episodes occurred in 5% of patients and in further 13% symptoms of behavioral toxicity were observed (excitement, irritability, insomia). Although far from conclusive, our data suggest that the prevalence of drug induced manias in ADHD children is similar to the suggested prevalence of bipolar disorder in this population and may reflect a "bipolar phenotype".

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S36.03

Comorbidity and diagnostic delay in attention-deficit/hyperactivity disorder

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Objective: Aims of this study were to assess the mean delay between the first consultation for ADHD related symptoms and diagnosis in a clinical sample of children and to determine predictors of diagnostic delay.

Subjects: Data from 129 consecutive ADHD patients aged 6–16 years were used for this study.

Materials and methods: A detailed clinical history was obtained from the parents. Assessments included Kiddie-SADS-PL, ADHD-Rating Scale, and ICG.

Results: In our sample, mean diagnostic delay was 33.4 ± 29.8 months. A previous suspicion of ADHD was associated with a reduced delay ($P = 0.0017$), while a previous contact with a mental health professional or the co-morbidity with anxiety/depressive disorders were associated with a longer delay ($P < 0.001$ and $P = 0.0077$, respectively).

Conclusion: Diagnostic delay of ADHD in France is among the longest found all around the world. Children with co-morbid anxiety or depressive disorders may be particularly at risk of receiving a late diagnosis of ADHD. We will discuss implications of these findings in clinical practice.

Keywords: ADHD; Diagnostic delay; Children

S25. Symposium: towards the molecular foundations of schizophrenia

S25.01

Animal and cellular models of schizophrenia-related phenotypes

D. Rujescu [1], J. Genius [1], A.M. Hartmann [1], A. Bender [2], I. Giegling [1], H. Grunze [1], H.J. Möller [1]. [1] *Department of Psychiatry, University of Munich, Munich, Germany* [2]*Department of Neurology, University of Munich, Munich, Germany*

The psychotomimetic effects of noncompetitive *N*-methyl-D-aspartate (NMDA) receptor antagonists such as phencyclidine (PCP) and ketamine in healthy humans and their ability to exacerbate several psychotic symptoms in schizophrenic patients have promoted a view of schizophrenia as being related to altered glutamatergic neurotransmission. This prompted us and others to develop animal models for psychosis based on a pharmacological approach. Pharmacological induction of a state of impaired glutamatergic neurotransmission based on chronic, low-dose application of MK-801, a highly selective noncompetitive NMDA antagonist, revealed marked parallels between schizophrenia and our animal model, extending from the molecular and cellular level to functional and behavioral abnormalities. MK-801 disturbed the pattern of regional glutamate distribution within the hippocampal structures, and altered the expression of NR1 splice variants and NR2 subunits of the NMDA receptor in a pattern resembling the alterations detected in schizophrenia. Ultrastructurally, the number of GABAergic parvalbumin-positive interneurons was relatively decreased, whilst calretinin-positive interneurons were relatively unaffected, a finding which again parallels observations in post mortem brain from schizophrenic patients. As a functional consequence, local inhibition of pyramidal cells which is largely mediated by recurrent axon collaterals, originating from GABAergic interneurons, was altered. We performed microarray analyses comparing the expression of 28,000 genes between MK801 treated rats and saline treated controls in order to identify candidate genes contributing to schizophrenia. We found several genes to be differentially expressed in hippocampus. These convergent lines of evidence suggest that our approach has a significant potential of serving as a model of the pathobiology of psychosis.

S25.02

A composite phenotype of neurological and morphological anomalies for genetic liability to schizophrenia

M.O. Krebs, D. Gourion, M. Fatjó-Vilas, M.C. Bourdel, L. Fañanás. *Paris, France*

Background: Schizophrenia is hypothesised to be the result of an interaction between genetic and environmental risk factors acting during prenatal development. However, the precise clinical correlate of this hypothesis remains unclear. Beside psychometric tools, neurological soft signs (NSS), minor physical anomalies (MPA) and dermatoglyphics are suggested to be putative indices of neurodevelopmental disruptions.

Methods: We have examined a sample of schizophrenic, patients and first degree relatives using standardized procedures for NSS, MPA, MMS, WAIS, PANSS subscales and examined the intrafamilial transmission and the relation to genetic loading in schizophrenia. Non psychotic parents were classified as "presumed carriers" of the genetic loading ($n = 26$) vs. "presumed noncarriers" ($n = 50$). NSS and MPA were compared in these groups.

Results: A multivariate analysis indicated that total NSS and MPA scores, adjusted for age and gender, were significantly related to group status. Univariate tests showed higher scores in motor coordination and integration subscores ($P = 0.005$ and 0.008, respectively) in presumed carriers than in presumed noncarriers. In addition, a discriminant function analysis based on total NSS and MPA scores correctly classified 71% of nonpsychotic parents in presumed carriers or presumed noncarriers. Patients, relatives and controls presented not significant differences in total a–b ridge counts and a–b ridge count fluctuating asymmetry. The presence of dermatoglyphic anomalies (ridge dissociations and/or abnormal palmar flexion creases) clearly differentiated between cases and control. Relatives had a similar proportion of dermatoglyphic anomalies to patients but differed from controls.

Conclusions: Neurological impairments and slight morphological anomalies seem to be associated with the genetic risk for schizophrenia, even when the disease itself is absent. Their presence might be a valuable composite intermediate phenotype for genetic studies.

S25.03

Electrophysiological endophenotypes and schizophrenia

F. Thibaut, S. Louchart De La Chapelle, I. Nkam, E. Houy, A. Belmont, J.F. Ménard, A.C. Roussignol, O. Siwek, M. Mezerai, M. Guillermou, G. Fouldrin, D. Levillain, S. Dollfus, D. Campion.

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The identification of heritable neurobiological markers or endophenotypes associated with schizophrenia may contribute to the genetic dissection of the disease. Three electrophysiological endophenotypes are routinely studied in schizophrenia: eye tracking dysfunction, deficits in P50 event-related potential in a two-auditory-click conditioning test paradigm, and saccadic inhibition deficits.

Data from these three paradigms were available for 81 schizophrenic patients (DSM IV criteria), 25 non schizophrenic parents of patients and 60 healthy controls.

Using Fisher's exact test, the number of errors in the antisaccade paradigm and smooth pursuit gain were not independent in the parent and schizophrenic groups. We found also significant correlations between smooth pursuit gain and the antisaccade error rate in schizophrenic patients and parents. Neither correlation was observed between smooth pursuit gain and P50 ratio nor between antisaccade error rate and P50 ratio.

Eye tacking dysfunction and saccades may stem from the same prefrontal cortical dysfunction. In contrast, there is little evidence to suggest that paradigms measuring sensory gating (P50 paradigm and the antisaccade paradigm) evaluate similar brain processes. We will discuss the potential interest of these results for genetic studies.

Reference: A concordance study of three electrophysiological measures in schizophrenia. Louchart de la Chapelle S, Nkam I, Houy E, Belmont A, Ménard JF, Roussignol AC, Siwek O, Mezerai M, Guillermou M, Fouldrin G, Levillain D, Dollfus S, Campion D, Thibaut F. Am J Psychiatry March 2005.

Free Communications: miscellaneous

Manic behaviour induced by deep brain stimulation in Parkinson's disease: evidence of Substantia nigra implication?

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Aims: To report the case of a patient who had benefited from bilateral subthalamic nucleus deep brain stimulation (STN-DBS) for Parkinson's disease and who presented acute and reproducible manic behaviour according to the stimulation conditions.

Methods: Mood swings were assessed in a double-blind fashion using the Bech and Rafaelsen manic scale (MAS) in five conditions: no stimulation, bilateral stimulation with mania, bilateral stimulation without mood changes and cross stimulation. The contacts location was determined by automatized matching of the post operative MRI with the stereotactic preoperative coronal MRI. A PET scan using H2 15O was performed in three conditions (no stimulation, stimulation without mood changes and with mania).

Results: The manic behaviour was specifically induced by a bilateral stimulation of the deepest contacts both located in the *Substantia nigra* (SN). Compared to STN stimulation without mood disorders, mania was associated with an increase of rCBF in the right superior frontal gyrus, dorsolateral prefrontal cortex, inferior temporal gyrus and lateral premotor cortex as well as in the left anterior cingulate cortex. Simultaneously, a decrease of rCBF was noted in the left insula, inferior parietal and superior temporal lobes.

Conclusion: The modifications of cortical activation related to mania in our patient are subcortically driven, involving the SN.

Deep brain stimulation of the ventral caudate nucleus in the treatment of obsessive–compulsive disorder and major depression

B. Aouizerate [1,6], C. Martin-Guehl [2], E. Cuny [3,6], D. Guehl [4,6], H. Amieva [7], A. Benazzouz [6], C. Fabrigoule [7], M. Allard [5], A. Rougier [3,6], B. Bioulac [4,6], J. Tignol [1,6], P. Burbaud [4,6]. *[1] Service Universitaire de Psychiatrie A [2] Service Universitaire de Psychiatrie B, CH C. Perrens [3] Service De Neurochirurgie, CH Pellegrin [4] Service De Neurophysiologie Clinique [5] Service de Médecine Nucléaire, CH Pellegrin [6] CNRS UMR 5543 [7] Inserm U593, Université Victor Segalen Bordeaux2, Bordeaux, France*

Deep brain stimulation (DBS) has recently been proposed as a possible therapeutic alternative in resistant obsessive–compulsive disorder (OCD). In the present study, we tested the hypothesis that DBS of the ventral caudate nucleus might be effective in two patients with intractable severe OCD and concomitant major depression.

In the first patient who received no pharmacological and/or psychological treatment after surgery, DBS of the ventral caudate nucleus markedly improved depressive and anxiety symptoms until remission obtained at 6 months (HDRS ? 7 and HARS ? 10). There was also a delayed remission of OCD (Y-BOCS < 16) after either 12- or 15-month DBS. The level of functioning on GAF progressively increased over the first 15 months. Failure of the pulse generator battery, which was discovered following a clinical impairment, did not affect depressive and anxiety symptom intensity, but worsened OC manifestations with a slight deterioration of global functioning at 18 months. A return to remission levels for OCD was observed 3 months after generator replacement and remained stable until the end of the 27-month follow-up. This was paralleled by an improvement in psychosocial functioning. In the second patient, DBS, when combined with antidepressant pharmacotherapy, produced a profound decrease in OC and depressive symptom severity until remission achieved at 6 and 9 months, respectively. Interestingly, no neuropsychological alteration or any adverse clinical effect was reported. Therefore, this finding suggests that DBS of the ventral caudate nucleus could be a promising strategy for treating refractory cases of both OCD and major depression.

Administration of the antidepressant Tianeptine blocks stress-induced amnesia in rats by strengthening memory

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We have studied the effects of stress (cat exposure) and the antidepressant Tianeptine on learning and memory in rats trained to remember the location of a hidden escape platform in a water maze (see Biological Psychiatry, 57:856, 2005 for methods). Pre-training stress had no effect on spatial learning or short-term (1 h) memory, but did impair long-term (24 h) memory. We also found that stress occurring immediately before the 1 or 24 h memory test impaired retrieval. In each condition, treatment with Tianeptine (10 mg/kg, ip) before training blocked stress-induced amnesia. We then tested the hypothesis that Tianeptine administered before learning strengthens the rats' memory of the hidden platform location. Rats treated with Tianeptine (1, 5 or 10 mg/kg) before learning exhibited strong 24 h memory under

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minimal training conditions which produced poor memory in vehicle-treated rats. Finally, we also found that Tianeptine administered 24 h after training did not block the stress-induced impairment of memory. These findings support the hypothesis that Tianeptine blocks stress effects on memory by strengthening memory storage processes. The findings also suggest that Tianeptine should improve cognitive functioning in people during times of stress.

Longitudinal assessment of neurocognition can reveal acute and persisting factors in depression

Z. Kupper, W. Tschacher. *University Psychiatric Services, Bern, Switzerland*

Background and aims: To clarify the relationships between neurocognition, psychopathology and social functioning in depressive disorders using a longitudinal research design.

Methods: Thirty-eight outpatients with depressive disorders where tested at intake and at discharge from a community based day treatment program. Neurocognition was assessed with a comprehensive battery of neuropsychological tests. Symptoms and social functioning were examined at both time points. Changes scores and residual change scores were calculated and relationships between neurocognition and clinical improvement were analysed.

Results: The overall degree of neurognitive impairment was moderate. Although symptoms improved markedly over the course of treatment, there were only minor improvements in neurocognition. Neurocognition at discharge was most strongly related to other variables, including persisting symptoms and residual change of social functioning. A strong relationships between verbal memory performance (California Verbal Learning Test) at discharge and the degree of remission from depression was found in symptom measures, subjective measures and measures of global functioning.

Conclusions: Impairments of verbal memory assessed in stabilised depressive states seem to reflect persisting factors of depression that have a strong impact on the symptom course. A longitudinal assessment of neurocognition, psychopathology and social functioning can reveal transient as well as persisting factors of depressive disorders. Hypothetically, these transient and persisting factors may be related to specific neurobiological processes and pathways involved in depressive disorders.

PTSD and depression of university students 7 years after 1992–1995 war in Bosnia-Herzegovina

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Background and aims: To estimate the prevalence of Posttraumatic Stress Disorder (PTSD) and Depression of university students after the 1992–1995 war in Bosnia and Herzegovina (BH).

Methods: The sample of 677 students (352 females) aged of 22.1 ± 2.5 years, divided into two groups, were evaluated for prevalence of PTSD and depression. One group: participants who spent the whole war period in homeland Bosnia-Herzegovina (n = 591) and another: participants who left BH because of war, spent certain period in foreign country as refugees and returned to homeland after war (n = 86).

Results: In the whole sample the prevalence of PTSD was 15.95%; students who spent whole war period in BH presented significantly more PTSD (17.6%) then those who were out of war circumstances 3.9% (Chi-square = 9.385; df = 1; P = 0.002). Girls presented significantly more PTSD (20.7%) then boys (10.8%) (Chi-square = 12.526, df = 1, $P < 0.001$). The prevalence of depression in whole sample was 24.7%; it was significantly higher among students who were in BH during the war (26.6%) then among those who were abroad (11.6%) (Chi-square = 9.014; df = 1; P = 0.003). Girls were significantly more depressive (29.0%), than boys (20.0%) (Chi-square = 7.329; df = 1; P = 0.007). Severity of depressive symptoms directly correlated to the severity of PTSD symptoms (Pearson's $r = 0.683$; $P < 0.001$).

Conclusions: The PTSD and depression among university students in BH 7 years after the war quitted was significantly higher among those who were exposed to war trauma and among girls. Students who were refugees in foreign countries during the BH war were better protected of psychopathological responses after war trauma.

Microcriminality and acute stress disorders (DAS)

A. D'Ambrosio, M. Vacca, T. Golia, A. Esposito. *Department of Psychiatry, Faculty of Medicine and Surgery SUN, Napoli, Italy*

The victims of micro crime events constitute a high risk group to expose to the DAS onset and, later on, predispose to really PTSD pathology.

Naples is a city when such event is much present. This research examines the prevalence of mental health problems after such traumas and the possible correlation with a particular psychiatric morbidity and with a dissociative troubles.

The study has performed among the persons (n = 300) that are brought in the Police Office of Naples to do a denunciation of crimes which they were victims.

Objectif of this search is that to appraise:

1. The prevalence of the DAS in this champion.
2. The presence of dissociative symptom.
3. The presence of psychiatric pathology.
5. The relationship of points over described with the crime type.

Methods:

1. Structured interview.
2. Form of diagnostic evaluation for the DAS.
3. GHQ 30 to appraise the presence of psychiatric symptomatology.
4. DES for the evaluation of the dissociative troubles.

Results indicated that victims of crime were more likely to suffer from PTSD simptoms and dissociativity traits in association of type of crime.

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BR03. Meet the professor breakfast session: sponsored by AstraZeneca

Critical review of the management of bipolar depression

J.C. Cookson. *Royal London Hospital, London, UK*

Background: Bipolar depression is a debilitating illness that represents a substantial burden to patients, carers, and society. Frequently underdiagnosed or misdiagnosed as unipolar depression, the depressive phase of bipolar disorder is associated with elevated risks of substance misuse and suicide.

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Objective: To review opportunities to enhance the management of bipolar depression through analysis of published trial data.

Methods: Collation and appraisal of trial data and guidelines.

Results: Early diagnosis reduces the frequency and severity of depressive episodes. International Guidelines for managing bipolar depression show regional differences, indicating the need for more reliable evidence. Previous evidence supports the use of certain antidepressants, lamotrigine or lithium. Recent evidence from pivotal trials of olanzapine and quetiapine shows that these atypical antipsychotics have efficacy in treating bipolar depression [1,2]. These medications, in addition to offering prompt efficacy, with low risk of triggering mania, may provide enhanced tolerability relative to existing medications—an important consideration in adherence. Evidence also supports the benefit of Psychoeducation, as a supplement to pharmacotherapy and with a probable expanding role in future.

Conclusions: Recent developments in diagnosis and treatment offer hope to alleviate the burden of bipolar depression.

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S39. Symposium: new developments in brain imaging in schizophrenia

S39.01

Functional connectivity in schizophrenia

R. Schlösser. *Germany*

Aim: A considerable body of evidence supports the notion that working memory depends on the concerted interplay of widespread interacting networks including the prefrontal and parietal cortices, subcortical regions and cerebellar areas. The functional integrity of this network may be compromised in schizophrenia. The present review will focus on basic methodological issues of SEM for the analysis of fMRI datasets in studies of working memory. Aside from a discussion of previous studies and their essential findings, advanced methodological issues and caveats as well as future perspectives of the method will be addressed. Our objective was to delineate the profile of brain structural and functional changes in BD and to examine the contribution of familial risk.

Methods: We used structural equation modelling (SEM) or path analysis to model interactions among covarying brain areas during performance on a working memory task. We compared patterns of connectivity between schizophrenic patients and healthy, matched controls.

Results: Compared to controls, patients showed reduced connectivity between cortical regions and between cortical and subcortical regions.

Conclusions: In schizophrenia there is evidence of significant and widespread reduction in brain connectivity that may underlie the cognitive deficits observed in this disorder.

S39.02

Imaging brain structural changes over time in first episode schizophrenia

R. Khan. *The Netherlands*

Aim: The main purpose of this study was to examine the progression of observed brain structural alterations in patients with first episode psychosis.

Methods: Structural MRI data were obtained from FE schizophrenia patients recruited through the Dutch multicentre study on schizophrenia. Patients were followed up for a 2-year period.

Results: Progressive gray matter loss was observed in prefrontal cortical regions.

Conclusions: In schizophrenia volumetric brain changes continue to evolve after the onset of psychosis.

S39.03

Longitudinal brain structural changes in early onset schizophrenia

S. Frangou. *London, UK*

Aim: The main objective of this study was to investigate the evolution of structural brain changes in patients with early onset schizophrenia (EOS; onset prior to 17th birthday) and its potential relationship to neurodevelopment and medication.

Methods: Twenty two patients with schizophrenia (mean age at baseline was 15 years) and their individually matched controls underwent structural magnetic resonance imaging twice with a mean interval of 4 years. All patients were on treatment with atypical antipsychotics throughout the intervening years. Changes over time between the two groups were measured using a VBM procedure.

Results: Healthy controls showed the expected reduction in gray matter volume and increase in white matter volume over the 4-year interval. No changes in either gray or white matter volume were observed in patients.

Conclusions: Treatment with atypical antipsychotics may reduce the gray matter loss in patients with EOS.

S39.04

Brain morphology in early onset schizophrenia

J.L. Martinot. *Orsay, France*

Aim: The objectives of this study were to investigate gray and white matter volumes in schizophrenic men with an early age at illness onset, and to determine whether clinical features correlated with tissue volume changes.

Methods: We used automated VBM image analysis to compare 20 patients with schizophrenia to an equal number of controls.

Results: Patients had significant gray matter reductions in medial frontal gyri, left insula, left parahippocampus, and left fusiform gyrus; bilateral white matter reductions in frontal lobes, and increased total cerebrospinal fluid volume were also observed. Negative symptom scores were negatively related to white matter volumes in cingulate regions, and in the right internal capsule.

Conclusions: Our findings suggest that fronto-paralimbic connectivity may be altered in men with early onset schizophrenia.

S06. Symposium: first episode schizophrenia: results from long-term studies

S06.01

Acute treatment of first episode schizophrenia

H.-J. Möller. *Munich, Germany*

First episode schizophrenic patients are increasingly seen as a special sub-group with respect to treatment. Studies have shown that these patients respond very well to relatively low doses of neuroleptics. On the other hand, they have a greater risk of experiencing extrapyramidal-motor side effects.

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The efficacy of haloperidol and risperidone in first episode schizophrenic patients was compared in a randomised, double-blind, prospective 8-week study performed within the framework of the German Schizophrenia Network. The study design ensured that the smallest clinically effective dose was administered. The study participants were inpatients at various German university hospitals.

The main objective of the study was to investigate whether the efficacy and extrapyramidal-motor tolerability of a second generation antipsychotic such as risperidone is superior to that of the classical neuroleptic haloperidol when both are given at the lowest possible dose. It was hypothesised that risperidone would be superior with respect to negative and depressive symptoms, cognitive impairment and extrapyramidal-motor tolerability.

The preliminary results of the study comparing risperidone and haloperidol will be presented, as well as comparative results from a large, naturalistic study on the acute treatment of patients with first and multiple manifestations.

S06.02

Pharmacological long-term treatment in first-episode schizophrenia

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Background and aims: In first-episode schizophrenia the advantage of longterm treatment with atypical compared to (low-dose) typical antipsychotics and the indicated duration of maintenance treatment has still to be based on empirical evidence. Accordingly, a multi-center study on longterm treatment strategies in first-episode schizophrenia was carried out as part of the German Research Network on Schizophrenia (funded by the German Ministry of Education and Research).

Methods: In the first treatment year, the relapse preventive efficacy of maintenance treatment with risperidone vs. (low-dose) haloperidol is compared (randomized double-blind design). In the second treatment year, relapse rates under continued neuroleptic treatment are compared with those under stepwise drug withdrawal (supplemented by prodrome-based early intervention; randomized design).

Results: Among the 159 first episode patients (ICD-10 F20) included in the long-term study, no relapse (corresponding to the predefined criteria) was observable in the first treatment year under regular treatment conditions. On average, psychopathological symptoms were moderate after acute treatment and decreased steadily. Drug side-effects measured with various scales were low, and although compliance on average was high, about 65% of the patients dropped out during the first year.

Regarding the second year about 15% were not eligible for drug discontinuation and about 25% chose the converse treatment as assigned.

Conclusions: Treatment in first episode schizophrenia is effective under both antipsychotics however these patients are at high risk for treatment drop-out. This emphasizes the need for a special support program. Additionally, various longterm treatment strategies should be provided to take patients preferences into account.

S06.03

Psychological intervention in the long-term care of first episode schizophrenia

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Background and aims: Psychological intervention has established its role in the treatment of schizophrenic disorders. However, the first episode poses a special challenge for therapists. Treatment strategies should therefore be evaluated separately for this subgroup of patients.

Methods: In the framework of the German Research Network on Schizophrenia we are conducting a multicentric randomised clinical trial addressing the efficacy of a comprehensive CBT-program to reduce the relapse rate in first episode schizophrenia. The treatment follows a published treatment manual. The CBT group will be compared to a short psychoeducation representing a good standard treatment. Patients of both groups receive medication in the framework of a double-blind randomised trial.

Results: The sample consists of $n = 111$ first episode patients. The medication compliance in this study is quite high, presumably due to the fact that patients are participating in a medication study, too. Regarding the treatment conduction we found that patients are attending more than 80% of the scheduled sessions. Session ratings of patients indicate that they are emphasising the quality of the patient-therapist-relationship to a greater extent than therapists. Analyses of the audio tapes of a subsample show that therapists adhere satisfactory to the treatment manual. The primary endpoint of this study is the relapse rate 2 years after inclusion. The final analysis of the 1-year follow-up shows no significant difference of relapse rates between the study conditions.

Conclusion: In first episode patients with high treatment compliance psychoeducation alone might be sufficient for relapse prevention, at least for the short term.

S06.04

Side effects and compliance in first episode schizophrenia

W.W. Fleischhacker. *Department of Biological Psychiatry, Medical University, Innsbruck, Austria*

Although first-episode patients are the most responsive to treatment, they are also among the most susceptible to antipsychotic-induced adverse events, which are known to have profound implications on compliance. The first contact with antipsychotics will shape the future acceptance of drug treatment. Compliance may be jeopardized by negative attitudes (“I do not want to take drugs that change my character”) and tolerability problems (“this medication makes me feels stiff, impotent, fat...”). As a consequence, it is critical that patients experiencing a first episode of psychosis are treated with an effective drug that produces minimal side effects.

Several studies have reported improved efficacy and tolerability of second generation antipsychotics compared with conventional agents in first-episode patients. Aside from the issue of side effects, one has to be aware of the fact that compliance problems have a multifaceted etiology. It is influenced by factors related to the patients themselves, to their illness, to the treatments employed and to the patients´ environment, including most importantly, the relationship between the patients and their care team [1]. All of these factors have to be taken into account when trying to tackle compliance problems.

Given the tremendous impact of compliance on the outcome of schizophrenia, successful management of compliance problems has highly relevant consequences both for the welfare of our patients and the economics of our healthcare system.

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S06.05

First results of the European first episode study

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Background: Most studies comparing second generation antipsychotics with classical neuroleptics have been conducted in more or less chronic schizophrenia patients.

Aims: The aim of the European First Episode Schizophrenia Trial (EUFEST) is to compare treatment with amisulpride, quetiapine, olanzapine and ziprasidone to a low dose of haloperidol in an unselected sample of first episode schizophrenia patients with minimal prior exposure to antipsychotics.

Methods: Five hundred patients between the ages of 18–40 meeting DSM-IV criteria for schizophrenia, schizoaffective disorder or schizophreniform disorder will be randomly allocated to 1 year of treatment with one of the drugs under study. Maximum prior antipsychotic treatment is limited to 2 weeks. The primary outcome measure is retention in treatment, defined as time to discontinuation of study drug. Secondary measures include changes in different dimensions of psychopathology, side effects, compliance, social needs, quality of life, substance abuse and cognitive functions.

Conclusions: At present, recruitment has been concluded and more than 490 patients have been recruited and randomized. The study will be finished by the end of 2006. At this conference baseline characteristics of this sample will be presented.

S06.06

Prediction of relapse in first episode schizophrenia

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Aims: Despite a multiplicity of well-known variables, which are statistically correlated with the course of schizophrenia, no valid prediction of long-term outcome can be made in indi-vidual cases, in particular at the beginning of the disorder. Notably the temporally circum-scribed event of a relapse is only very difficult to predict so far. Therefore the impact of the components of the Vulnerability-Stress-Coping (VSC) model of schizophrenia on relapse and the relationship to prodromal symptoms preceding a relapse shall be examined.

Method: As part of a comprehensive study on acute and long-term treatment strategies in first episode schizophrenia patients within the German Research Network on Schizophrenia (GRNS), assessment of VSC-components took place at inclusion into a long-term treatment study (T0) and after 1 year of controlled medication and psychological treatment (T1). A total of $n = 151$ patients entered the study, $n = 52$ could be reassessed at T1.

Results: First analyses of the only recently finished study have shown that a sum score of unspecific prodromal symptoms obtained considerable sensitivity (85%) and specificity (60%) in predicting clinical deterioration in first episode patients under controlled long-term treatment. Neuropsychological impairments as vulnerability indicators prove to be unrelated to prodromal symptoms allowing to use both in combination to improve the prediction of poor clinical course.

Conclusion: For an application within early intervention long-term strategies in schizophrenia the predictive validity obtained so far has to be improved, however, by completing or combining prodromes with other variables, e.g. by additional inclusion of stress and coping indicators.

S44. Symposium: psychopharmacotherapie: interet des dosages plasmatiques et des tests pharmacogenetiques (in French)

S44.01

Traitement antidépresseur: la place du monitoring thérapeutique (TDM) et des tests pharmacogenetiques

L.F. Gram. *Department of Clinical Pharmacology, University of Southern Denmark, Odense, Denmak*

Le TDM sert à déterminer la posologie par la mesure des taux plasmatiques du médicament et de ses métabolites actifs, dans le but de réduire la variabilité entre la dose prescrite et la réponse clinique. Cet instrument permet de contrôler à la fois l'observance et la variabilité pharmacocinétique. Dans le cas des antidépresseurs, la variabilité pharmacocinétique est largement déterminée par le métabolisme et par des facteurs génétiques (polymorphismes) et environnementaux (interactions). Dans une étude sur la relation dose-effet avec la clomipramine, les doses du médicament ont varié d'un facteur 8, mais ses taux plasmatiques ont varié d'un facteur 100, avec un chevauchement considérable entre les groupes classés selon la dose. L'index thérapeutique peut être défini comme le quotient entre la dose ou la concentration qui est à la base d'une mauvaise tolérance, et la dose ou la concentration qui signifie une bonne réponse thérapeutique. Des résultats concluants sont rares pour les antidépresseurs. Le résultat le plus probant concerne probablement l' effet/dose en relation avec les drop-outs pour des effets indésirables (intolérance) et le manque d'effet thérapeutique (mesure inverse de l'effet thérapeutique). De telles données récoltées pour la fluoxétine et la clomipramine suggèrent des courbes effet/dose plates et chevauchantes, de manière qu'aucune dose (ou concentration) optimale ne peut être définie. La pharmaco-génétique des antidépresseurs est avant tout en relation avec l'enzyme polymorphe CYP2D6, qui est impliquée dans le métabolisme de tricycliques et de plusieurs SSRIs. Le génotypage avant le traitement constitue un outil puissant pour éviter des effets indésirables précoces, qui peuvent être à la base d'une mauvaise observance ou d'un effet thérapeutique insuffisant, qui peut aussi avoir comme conséquence une observance insuffisante. Le CYP2D6 est aussi très important en relation avec des interactions cliniquement significatives entre médicaments.

S44.02

Traitement antidépresseur: la place du monitoring thérapeutique (TDM) et des tests pharmacogenetiques

M. Bourin. *EA 3256 Neurobiologie De L'anxiété et de la Dépression, Université de Nantes, France*

Le TDM sert à déterminer la posologie par la mesure des taux plasmatiques du médicament et de ses métabolites actifs, dans le but

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de réduire la variabilité entre la dose prescrite et la réponse clinique. Cet instrument permet de contrôler à la fois l'observance et la variabilité pharmacocinétique. Dans le cas des antidépresseurs, la variabilité pharmacocinétique est largement déterminée par le métabolisme et par des facteurs génétiques (polymorphismes) et environnementaux (interactions). Dans une étude sur la relation dose-effet avec la clomipramine, les doses du médicament ont varié d'un facteur 8, mais ses taux plasmatiques ont varié d'un facteur 100, avec un chevauchement considérable entre les groupes classés selon la dose. L'index thérapeutique peut être défini comme le quotient entre la dose ou la concentration qui est à la base d'une mauvaise tolérance, et la dose ou la concentration qui signifie une bonne réponse thérapeutique. Des résultats concluants sont rares pour les antidépresseurs. Le résultat le plus probant concerne probablement l'effet/dose en relation avec les drop-outs pour des effets indésirables (intolérance) et le manque d'effet thérapeutique (mesure inverse de l'effet thérapeutique). De telles données récoltées pour la fluoxétine et la clomipramine suggèrent des courbes effet/dose plates et chevauchantes, de manière qu'aucune dose (ou concentration) optimale ne peut être définie. La pharmacogénétique des anti-dépresseurs est avant tout en relation avec l'enzyme polymorphe CYP2D6, qui est impliquée dans le métabolisme de tricycliques et de plusieurs SSRIs. Le génotypage avant le traitement constitue un outil puissant pour éviter des effets indésirables précoces, qui peuvent être à la base d'une mauvaise observance ou d'un effet thérapeutique insuffisant, qui peut aussi avoir comme conséquence une observance insuffisante. Le CYP2D6 est aussi très important en relation avec des interactions cliniquement significatives entre médicaments.

S44.03

Monitoring des taux plasmatiques (TDM) et tests pharmacogenetiques: precieux outils en pharmacovigilance

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La majorité des effets indésirables sont du type A, c'est-à-dire prévisibles sur la base de l'activité pharmacologique et généralement aussi de la concentration du médicament. Les variations inter- et intraindividuelles des taux plasmatiques sont le résultat d'interactions entre nombreux facteurs : prédisposition génétique, âge, sexe, comorbidités associées, interactions médicamenteuses, nutrition et style de vie.

Les taux plasmatiques corrèlent mieux avec la concentration du médicament au site d'action qu'avec la dose ingérée. Le TDM représente un bon instrument pour comprendre la cause d'un effet indésirable, mais aussi pour le prévenir. Similairement, les tests pharmacogénétiques permettent de révéler, surtout en cas de taux plasmatiques très élevés ou très bas, une particularité génétique chez un patient, dont il faudra tenir compte lors de tous les traitements ultérieurs.

En pharmacovigilance, nous menons une étude de cohorte dynamique dans notre hôpital psychiatrique à Königsfelden (400 lits). Pour tous les cas présentant un effet indésirable grave, nous analysons les taux plasmatiques des médicaments incriminés ainsi que le statut pharmacogénétique (cytochrome P-450) du patient. En 4 ans, nous avons collecté environ 300 cas. Le TDM et les tests pharmacogénétiques nous aident à mieux comprendre de nombreux effets indésirables et à trouver des traitements mieux tolérés pour ces patients. Sur la base d'une présentation de cas, un algorithme pour l'utilisation optimal du TDM et des tests pharmacogénétiques sera proposé.

S44.04

Apport du monitoring plasmatique et des tests pharmacogenetiques: le point de vue du clinicien

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Le monitoring plasmatique des psychotropes et les tests pharmacogénétiques présentent un intérêt certain dans la pratique clinique en psychiatrie.

La mesure de ces concentrations plasmatiques s'est en effet révélée utile en clinique en raison de l'existence de leur grande variabilité interindividuelle et de la mise en évidence d'une relation entre concentration plasmatique et effet thérapeutique pour certains antidépresseurs, dont les tricycliques. Outre la pratique en " routine " de ces dosages pour l'amitryptilline, la clomipramine et l'imipramine, plusieurs études de pharmacocinétique ont été réalisées pour d'autres molécules, ou dans le cadre de pathologies associées à la dépression, comme l'éthylisme ou l'insuffisance rénale, pathologies modifiant le devenir du médicament dans l'organisme ainsi que la réponse clinique.

Les médicaments psychotropes utilisés en pratique clinique sont métabolisés au niveau hépatique par des enzymes appartenant au système des cytochromes P450 dont le cytochrome P450 2D6. Cette enzyme est soumise à un polymorphisme génétique avec des sujets qui sont métaboliseurs rapides, lents, ou intermédiaires. En pratique, cette capacité métabolique est un facteur qui peut influencer l'efficacité thérapeutique du traitement suivi mais également sa tolérance.

L'utilisation des tests pharmacogénétiques de phénotypage et de génotypage permet de préciser la capacité métabolique des sujets et en pratique clinique il peut être opportun de pratiquer des explorations pharmacogénétiques en cas d'inefficacité d'un traitement psychotrope bien conduit à dose habituellement thérapeutique et en cas de mauvaise tolérance à des posologies habituellement bien tolérées.

Ainsi ces techniques doivent aider à personnaliser les prescriptions et améliorer la prise en charge des patients.

S44.05

Recommandations du groupe d'experts AGNP-TDM: le monitoring a but therapeutique des medicaments psychotropes

P. Baumann. *Département De Psychiatrie, CHUV, Université De Lausanne, Lausanne, Switzerland*

Le monitoring thérapeutique de médicaments (TDM) est bien établi en psychiatrie, mais une recommandation générale pour son utilisation optimale fait défaut. Le groupe interdisciplinaire AGNP-TDM (Arbeitsgemeinschaft für Neuropsychopharmakologie und Phamakopsychiatrie ; Association de Neuropsychopharmacologie et de Pharmacopsychiatrie) a élaboré des recommandations dans le but de procurer aux psychiatres et aux laboratoires TDM un outil pour optimiser l'utilisation du TDM. Ont été définis : a) Cinq niveaux de recommandations, de 1. fortement recommandé à 5. pas recommandé ; b) une liste d'indications : contrôle de l'observance, absence de réponse clinique ou effets secondaires à des doses généralement recommandés, interactions médicamenteuses, programme de pharmacovigilance, présence d'une particularité génétique concernant le métabolisme de médicaments, enfants, adolescents et patients âgés ; c) les marges thérapeutiques et/ou des marges cibles pour des concentrations plasmatiques cliniquement significatives ; e) les différentes étapes du processus TDM ; f) les

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indications pour une combinaison du TDM avec des tests pharmacogénétiques. Ces recommandations, fruit d'un consensus, ont pour but d'améliorer la psychopharmacothérapie.

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S14. Symposium: Current research on persons clinically at risk for psychosis

S14.01

Detecting subjects putatively vulnerable to psychosis. Results of the EPOS project

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Objectives: The main aim of the European Prediction of Psychosis Study (EPOS) is to study a large sample of young patients who are at risk of psychosis and to estimate their conversion rate to psychosis during an 18-month follow-up. In general population, psychotic symptoms are rather frequent but their predictive power for psychosis is low. A more reliable strategy to detect subjects at risk of psychosis is to focus on patients attending psychiatric care and to try to extract from them those who are vulnerable to psychosis.

Methods: About 800 psychiatric outpatients, aged 16–35 and starting their new treatment period, fulfilled a screening instrument (PROD screen) and described the symptoms they had. The screens were scrutinised by senior psychiatrist and screen positive patients were selected for further examination, which included a standardised assessment of Basic Symptoms and positive symptoms in the SIPS/SOPS instrument.

Results: According to the PROD screen, 26 % of the patients were assessed to be vulnerable to psychosis. In an interview, 63 % of them were assessed to be at risk of psychosis, thus about 15 % of patients attending psychiatric outpatient care seem to be at risk to psychosis.

Conclusions: A considerable proportion of psychiatric outpatients is at risk of psychosis, and it is possible to detect that. Written description of symptoms increases the reliability of screening procedure.

S14.02

The schizophrenia proneness instrument (SPI-A)—a tool for the assessment of basic symptoms

F. Schultze-Lutter [1], S. Ruhrmann [1], H. Picker [1], J. Klosterkötter [2]. *[1]FETZ, Department of Psychiatry [2]Department of Psychiatry, University of Cologne, Germany*

An ultra-high risk (UHR) mental state for developing a psychosis is currently defined mainly by attenuated (APS) and transient psychotic symptoms (BLIPS). Another promising approach is the basic symptom concept, which aims at an earlier detection of the beginning psychosis.

In a recently concluded prospective evaluation study of the schizophrenia proneness instrument, adult version (SPI-A), 146 subjects (68.5% males, mean age 24 ± 5 years.) with at least one of ten cognitive-perceptive basic symptoms were followed up on average 13 ± 9 months (range: 1–37) for their psychopathology with the SPI-A, the structured interview for prodromal syndromes (SIPS) and the PANSS.

51 (34.9%) subjects developed a frank psychosis, mainly paranoid or undifferentiated schizophrenia, within 11 ± 9 months on average, 85% of them had already exhibited APS according to the SIPS at baseline. Comparing baseline data of those with and without a development of psychosis (Mann–Whitney U-test, adjustment for multiple testing according to Holm's sequential method), significant differences showed for the SPI-A 'cognitive disturbances', SIPS 'positive symptoms', 'negative symptoms' and 'disorganized symptoms' and PANSS 'negative scale'. A classification equation yielded by stepwise logistic regression analysis including SIPS 'disorganized symptoms', PANSS 'negative scale' and SPI-A 'cognitive disturbances' and 'cognitive-attentional impediments' classified 73% of the cases correctly.

Thus, the results underline the importance of self-experienced cognitive deficits in the early detection of psychoses.

Acknowledgement: The study was funded by the German Research Foundation, DFG, at grant ID KL 970/3-1,2.

S14.03

The FEPSY program—concept and findings of a Swiss early detection approach

A. Riecher-Rössler. *Psychiatric Outpatient Department, University Hospital, Basel, Switzerland*

Objective: Early detection and therapy of schizophrenic psychoses have become a widely accepted aim in psychiatry, recently even in very early stages of the disorder where clear diagnostic criteria are not yet fulfilled. However, reliable and widely applicable methods do not yet exist. The FEPSY study aims to optimise the methods for early detection.

Methods: Individuals potentially in an early stage of schizophrenia were identified by a newly developed stepwise screening procedure between March 1st 2000 and February 28th 2004. Identified subjects have been examined extensively and followed up to detect actual transition to psychosis.

Results: Of 54 individuals at risk who have been followed up for 2–5 years, 19 have progressed to frank psychosis until September 2005, most of them during the first 12 months of follow-up.

Conclusions: At this stage, our screening promises to be a valid approach to the early detection of psychosis. Further results from this ongoing study will permit us to optimise the procedure.

S14.04

Early detection of people at risk for psychosis: results using the ERIraos

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Background and aims: Early detection is a necessary pre-condition for early intervention. Therefore, reliable and valid assessment instruments are required. The aim of our study is the validation of the early recognition inventory ERIraos. We used 105 symptoms of beginning schizophrenia in the ERIraos symptom list and assessed additional risk factors (traits) in six modules, e.g. for familial load, obstetric and birth complications, alcohol and drug consumption. ERIraos uses a 17 items

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checklist as screening (GP, psychologist) and the comprehensive symptom list at early intervention centres (expert level).

Methods: The symptoms assessed by the checklist/symptom list and the risk factors based on the modules were cross-tabulated by the criterion psychotic transition. Indices of prognostic validity (PPV; NPV etc.) were determined.

Results: Based on data of 236 patients "at risk", prevalence and duration of symptoms of additional risk factors are reported. Neither the most prevalent non-specific symptoms nor the earliest symptoms nor the risk factors proved as predicitive for psychotic transitions. But overall, for about 25% of the symptoms of the ERIraos symptom list had significant relations with transitions until a 1 year follow up. Most predictive were the non-specific symptoms of agitation, observed negative symptoms, but also BLIPS and attenuated positive symptoms.

Conclusions: The results are preliminary and need to be confirmed by alternative criteria variables (symptoms, diagnoses), by an extended time horizon until transition, and by separate analyses for patients treated in the early and late prodrome.

S14.05

Anomalies of self-experience as a cardinal component of the schizophrenia spectrum: summary of empirical data, conceptual clarification, and the construction of a psychometric scale

J. Parnas. *Department of Psychiatry, University of Copenhagen, Denmark*

On the basis of clinical experience and classic views on the psychopathology of schizophrenia, we have undertaken a series of empirical studies comprising 1) detailed phenomenological assessment of 19 first referred patients, 2) comparison of bipolar psychosis in remission and residual schizophrenia [n = 44], 3) comparison of schizophrenia, schizotypal disorders and other mental illnesses [n = 155], and 4) comparing schizophrenia with other diagnoses and no mental illness in a linkage study [n = 368]. Self-anomalies aggregate selectively in the schizophrenia spectrum patients. The importance of these findings as well theoretical aspects of self-hood are discussed. A development of a new psychometric scale-the Examination of anomalous self-experience (EASE) is described.

S14.06

Cognitive and neurobiological risk indicators in early and late prodromal stages—new data from the German Research Network on schizophrenia

M. Wagner [1], I. Frommann [1], J. Berning [1], R. Pukrop [2], A. Bechdolf [2], S. Ruhrmann [2],. J. Klosterkoetter [2], J. Brinkmeyer [3], W. Woelwer [3], P. Decker [4], W. Maier [1]. *[1]Department of Psychiatry, University of Bonn [2]Department of Psychiatry, University of Cologne, [3]Department of Psychiatry, University of Duesseldorf [4]Department of Psychiatry, University of Munich, Germany*

The early recognition and intervention program of the German Research Network on schizophrenia defines early and late prodromal stages according to psychopathological criteria. For concurrent and prospective validation of these risk stages, subjects undergo neurocognitive, electrophysiological and oculomotor assessments of putative vulnerability markers. About 125 early prodromal subjects (defined by the presence of basic symptoms; Klosterkoetter et al., 2001) and 90 late prodromal subjects (defined by attenuated positive symptoms or by brief occurrences of psychotic symptoms) have been assessed at inclusion. As compared to psychiatrically healthy matched controls, late prodromals have significantly inferior verbal memory, verbal fluency, visual motor skills, and working memory. Impairments are qualitatively similar, but less pronounced in subjects in an early prodromal stage, with deficits of immediate verbal memory, verbal fluency and visuomotor performance being significant. In early prodromals, global cognitive performance is related to the occurrence of psychotic symptoms during follow-up. Auditory P 300 is reduced in both prodromal groups, and appears to predict transitions to psychosis. Neurocognitive and neurophysiological assessments can validate and improve psychopathological risk assessment.

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CS08. Core Symposium: treatment of behavioural and psychological symptoms in dementia

CS08.03

Pharmacological treatment for BPSD

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According to the European Alzheimer's Disease Consortium, behavioural and psychological symptoms of dementia (BPSD) is divided into groups of symptoms, each possibly reflecting a different prevalence, course over time, biological correlate and psychosocial determinants. These subgroup are apathy/depression/agitation, aggression, psychosis/sleep disorders

The management should always begin with an assessment of the patient for medical and environmental causes of the behaviour. If the problem persists, non-pharmacological intervention and in a second step pharmacological intervention should be attempted.

Cholinesterase inhibitors are also effective on behavioural symptoms. An efficacy has also been observed in Lewy body dementia and in mixed dementia.

Memantine another drug with a specific indication for the treatment of AD may also haves an action on BPSD.

Antipsychotics: systematic reviews of pharmacological treatment indicated that risperidone and olanzapine currently have the best evidence for efficacy. However, the analysis also underline that the prescription is complicated by an increased risk of cerebrovascular events.

Antidepressants: serotonergic agents are well tolerated but they do not appear to be very effective in the treatment of BPSD other than depression. Dual antidepressants are hypothesized to have more efficacy on apathy.

The first results of the Ictus study (impact of treatment with cholinesterase inhibitors in European AD patients) a prospective, observational study aiming to ascertain the true impact of cholinesterase inhibitors on the natural course of the disease in clinical practice, by comparing treated and non-treated subjects over a period of 2 years will be presented.

CS08.04

Non-pharmacological treatment for behavioural and psychological symptoms(BPSD) in dementia: an EADC review

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Non-pharmacological treatment for behavioural and psychological symptoms(BPSD) in dementia: an EADC review

E Jane Byrne for the EADC/BPSD Thematic group

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The European Alzheimer's disease consortium (EADC) BPSD subgroup has produced consensus statements on the pharmacological and non-pharmacological treatment of BPSD. We also conduct active research in the area, particularly with a large (pooled) data set. This review will summarise European work in the area of cognitive stimulation as a therapy for BPSD, using studies on aromatherapy and bright light therapy as examples of randomised controlled trials. We also address the issue of treating single symptoms versus treating groups of symptoms and the bio-psycho social model of intervention. Research in this field is in its infancy. There is however a good scientific rationale for the use of the both aromatherapy (experimental evidence of psychotropic activity in vitro) and bright light therapy (experimental evidence for normalisation of circadian rhythm abnormalities). The pooling of large data sets across European countries also enables us to report in a cross-sectional manner on the current treatment strategies employed to treat BPSD in Europe.

CS01. Core Symposium: schizophrenia: a progressive brain disorder? Relevance for treatment

CS01.01

Long-term course of schizophrenia: poor outcome as an indicator of brain alterations?

H-J. Möller. *Munich, Germany*

Similar to other long-term studies, the results of the Munich 15-year follow-up study, which compared the outcome of first hospitalised patients with schizophrenic, schizoaffective and affective psychoses, demonstrated that on average the course and outcome of schizophrenia is less favourable than that of affective and schizoaffective disorders. Furthermore, it was shown that at least a subgroup of schizophrenic patients generally have a poor outcome. Negative symptoms occurred in all functional psychoses but were more frequent and prominent in the schizophrenic group than in the two other diagnostic groups at any time of assessment. Narrower concepts of negative symptoms, conceptualised as the deficit syndrome, seem to be specific for schizophrenia and appear quite rarely in patients with affective psychosis. Especially the long-term outcome appears to be predominantly characterised by negative symptoms/deficit syndrome in the sense that the negative symptoms/deficit syndrome differentiate much better the schizophrenic from the affective/schizoaffective patients than the positive symptoms. While there is such a clear signal that the increase of negative symptoms is the core symptomatology of schizophrenia, the question has not yet been fully answered whether cognitive disturbances, which are generally seen as the most relevant vulnerability indicator of schizophrenia, progressively deteriorate over the long-term course of schizophrenia.

How does this relate to the current theories and empirical data on the aetiopathogensis of schizophrenia? The neurodevelopmental hypothesis, which is very broadly accepted, can explain the origin of the disease in terms of vulnerability. However, at least in a subgroup of schizophrenic patients with a more chronic deteriorating course, the hypothesis of a progressive neurotoxic/neurodegenerative process has to be taken into consideration. Structural MRI data from several research groups suggest evidence for structural brain changes in the course of the disease. These data are in accordance with our Munich MRI database, which includes data from 400 patients and controls. These findings require additional replication and the specificity for schizophrenic patients in contrast to patients with affective disorders has to be assessed. Additional analyses show that the brain alterations demonstrated by MRI analyses are associated among others with negative symptoms. Of great interest is the link between genetic abnormalities of schizophrenic patients and brain alterations shown by MRI, which will allow a better understanding of the so-called first and second hit. Another view of the possible progressive biological course of schizophrenia is related to the neurotransmitter systems, especially to the glutamate system. The hypothesis of a glutamate "intoxication", which might explain the progressive deterioration, was suggested on the basis of animal research.

CS01.02

Brain changes in schizophrenia across the course of the illness: a five-year follow-up study

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Objective: Schizophrenia has been associated with decreased brain volume, particularly of gray matter, and increased ventricular volumes. However, it is unresolved how these changes progress over time.

Method: Two high-resolution magnetic resonance imaging brain scans were obtained at an interval of approximately 5 years of 96 patients with schizophrenia and 113 healthy subjects between 16 and 57 years of age.

Results: In patients, linear decreases of cerebral (average of –1.5% per 5 years) and cerebral gray matter (GM, –4.5%) volume changes were found across the age range; in healthy subjects curved fits were found. Cerebral and GM loss was excessive in patients as compared to controls before the age of 45. Cerebral white matter (WM) volume change with age showed a linear fit in patients (+2.6%), while in healthy individuals a constant increase was found (+1.6%). WM increase in patients was excessive before the age of 34. In patients, lateral ventricular volume change with age was curved (+9.6%); in controls it was linear (+6.9%).

Conclusions: Excessive (GM) tissue loss in schizophrenia is most prominent before the age of 45 years, while WM increases excessively before the age 34, suggesting the progression to occur during the first 20 years of the illness.

CS01.03

Immunological mechanisms in schizophrenia

N. Müller. *Germany*

An immunological/inflammatory process is discussed to be involved in the pathogenesis of schizophrenia. Modern immunological methods and new insights into the highly developed and functionally differentiated immune system allow an integrative view of immunological abnormalities in schizophrenia. Recent advances in immunological research regarding the differentiation between the type-1 and type-2 immune response and the specific and unspecific arms of the immune system are discussed. Recently, several descriptions showing the impact of inflammatory cytokines for emotional and cognitive processes have been published. Moreover, the tryptophan/kynurenine metabolism also plays an important role, because the type-2 activation leads to the increase of the endogenous NMDA-receptor antagonist kynurenine-acid. The inhibition of cyclo-oxygenase-2 (COX-2) has anti-inflammatory effects via the inhibition of prostaglandine E2 and pro-inflammatory cytokines. Therefore studies using the COX-2 inhibitor celecoxib have been performed in schizophrenia. The studies were performed as prospective, double-blind, randomized add-on trials. Risperidone was used as basic drug and was administered in a flexible dose add-on to either placebo or 400 mg/day

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celecoxib. In schizophrenia, the outcome of the celecoxib add-on therapy is related to the duration of disease. Especially in first episode patients and patients with a short duration of disease the COX-2 inhibition has favourable effects. It can be expected that a short-term inflammatory process responds better to anti-inflammatory treatment than chronic inflammation. In a chronic inflammatory process, cell destruction, apoptotic and degenerative processes play a role. Although neuroprotective properties of COX-2 inhibitors are described, they might not be able to reverse a chronic inflammatory process (at least in short-term treatment studies). Our results point out that COX-2 inhibitors show therapeutic effects in early stages of schizophrenia.

W17. Workshop: progress in research on hallucinations

W17

Progress in research on hallucinations

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Research on hallucinations has grown dramatically in the past few years. The goal of the present workshop is to present the latest research on hallucinations. The studies that will be presented come from a variety of approaches (e.g. experimental, neuroimaging) and from renowned researchers in the field. In particular, Andre Aleman will present a signal detection study that compares hallucinating schizophrenic patients with control subjects. Paul Allen will present data from a study investigating the neural correlates (fMRI) of speech misattribution (with the help of a speech monitoring paradigm) in patients with hallucinations and delusions. Daniela Hubl will present some volumetric data examining pathology of the planum temporale and Heschl gyrus in auditory hallucinations. Finally, Sukhwinder Shergill will present data examining whether psychotic symptoms in schizophrenia, particularly auditory hallucinations, are associated with dysfunctional predictive or forward models, using neuroimaging and psychophysical tests.

Free Communications: schizophrenia and psychosis

Perspectives after the prodromal phase: first episode psychoses interventions in the early phase

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First episode intervention studies in schizophrenia and related disorders in England, America, Australia and other countries in Europe have shown a high rate of remission, delay in psychotic relapse and prevention of psychosocial deterioration in 1–2 years of intervention studies. After the first 24 months, the 5-year follow-up studies show an increase in relapse rates and a decrease in psychosocial functioning. Till now long-term follow-up studies showed initial beneficial effects, followed by a return to the relapsing or chronic course of most cases in schizophrenia. Therefore a 5-year randomized intervention study examining the role of continuity of care by the same staff and the effect of parent groups. Risk and protective factors were assessed of 183 randomized patients at the start of the study and at 6-month intervals with the Life Chart Schedule (WHO, 1992). Results after a 4-year intervention showed a beneficial non-relapsing effect of early and sustained intervention in more than 60% of the first episode patients. Also a treatment reluctant group of less than 40% of young patients emerged, who relapsed once or more or developed continuous psychosis within 2 years. The main poor outcome predictors turned out to be lack of insight, cannabis abuse and non-compliance as assessed during the first 6 months of the intervention. The early course stabilised after 2 years.

Predicting 5-year outcome in first-episode psychosis—a prognostic rating scale

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Background and aim: The aim of this study was to construct a rating scale for long-term outcome on the basis of clinical and sociodemographic characteristics in patients with symptoms of psychosis that seek help in psychiatry for the first time.

Methods: Patients (n = 153) experiencing their first episode of psychosis were consecutively recruited from 17 psychiatric clinics in Sweden from January 1996 to December 1997 (24 months). Baseline characteristics were assessed with an extensive battery of psychiatric rating scales, as well as the duration of untreated psychosis, family history of psychosis, premorbid characteristics and cognitive functioning. The relationship between baseline characteristics and the 5-year outcome was analyzed using a stepwise logistic regression model.

Results: In the logistic regression analysis five variables were found to have unique contributions in the prediction of outcome. In order of magnitude of the odds ratios these variables were global assessment of functioning (GAF) during the year before first admission, education, actual GAF at first admission, gender and social network. The sensitivity, i.e. correctly identified cases (poor outcome), was 0.84 and the specificity was 0.77, i.e. the correctly identified non-cases (good outcome).

Conclusions: To initiate adequate interventions it is crucial to identify patients with an unfavorable long-term outcome that are experiencing their first episode of psychosis. The predictive rating scale is a feasible tool for early detection of these patients.

Schizophrenia, self constitution and etiological representation. an empirical study

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Background and aims: In psychopathology the question of identity in schizophrenia is a central one. Phenomenological psychiatry gives us clues to understand identity in schizophrenia and the role of etiological representations in self constitution. Following Ricœur's analysis, we can consider that etiological representations are metaphorical utterances which can enable everyone to re-build up the plot of his own history. Considering their central position in the creation of the plot, the etiological representations allow to re-open the constitution of narrative identity, and so, the harmonious articulation between the two poles: sameness and ipseity. From advent, psychosis becomes an event and so part of personal history.

This theoretical approach was confronted to an empirical approach. These hypotheses are put in front of patients' speeches.

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Method: Fifty patients with schizophrenia (according to DSM IV) were interviewed about etiological representations and identity. The interviews were recorded and the answers were analyzed with a content analysis technique.

Results: Patients were categorized according to the type of representation used and their type of identity. An analysis of correspondence was the performed showing the link between an identity pole and the type of representation used

Conclusion: There is a link between the type of etiological representation used by the patients and the constitution of identity. In clinical practice meeting a patient is sharing with him representations. Being aware of the patients' beliefs gives us clues to understand their self constitution.

Contextual binding, visuo-spatial memory and schizophrenia

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Numerous evidences support the existence of neurodevelopmental abnormalities at the level of the hippocampal formation in schizophrenia. Since hippocampus is implicated in episodic memory and contextual binding process, the aim of this study was to evaluate a possible contextual binding deficit in schizophrenic patients by using a visuo-spatial task (navigation in ecological condition). A secondary aim was to test the construction of a cognitive map of the environment by patients.

Methods: A navigation task (following a predetermined route in a real city with the experimenter) was performed by 20 young schizophrenics patients and 28 controls subjects. Visuo-spatial memory explorations consisted in three different tasks: free recall (verbal description and cartography); recognitions without effect order; recognition with effect order.

Analyses: Variables analyzed were as follows: number of actions and number of landmarks with or without spatial orientation (verbal description); number of critical and non-critical landmarks and number of correct orientation changes (cartography); good and false responses (recognition task).

Results: Schizophrenics patients performed significantly less actions, identified less landmarks and made more errors in orientation changes than control subjects. For recognition task without effect order there was no significant difference between the two populations. For task with order effect schizophrenic patients made more errors than controls.

Conclusion: Schizophrenic patients were impaired in cognitive map construction as well as during recognition of chronological landmarks. These results are compatible with the hypothesis of hippocampal and prefrontal cortex abnormalities in schizophrenia.

Altered neurocognitive binding in schizophrenia

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Background: Several studies found that schizophrenia spectrum patients show altered performance in a number of tasks that afford neurocognitive binding. Binding is a prerequisite for generating and/or retaining gestalts such as in perceptual grouping, in perception of apparent motion, and related paradigms. In addition to investigating emergent properties of information processing in schizophrenia spectrum patients, we hypothesized that such impairments correlate with psychopathology.

Methods: Computer-based neurocognitive tasks were implemented that provoke the gestalt illusions of apparent motion and motion-induced blindness. These illusions were presented in a manner that enabled qualitatively different perceptions through ambiguous stimuli (multistability). The stability of gestalt perception was assessed by the transition rates of these phenomena and by the hysteresis effect. We tested $N = 34$ schizophrenia patients (79 % males; mean age 27 years) and 34 matched control subjects. Psychopathology was assessed using the positive and negative syndrome scale (PANSS).

Results: Patients tended to show higher transition rates pointing to reduced perceptual gestalt stability and decreased binding capabilities. In particular, a marked association between PANSS scores and gestalt phenomena was found. These specific findings add to the evidence for altered neurocognitive binding in schizophrenia. We concluded that binding deficiencies are specific to the stage of schizophrenia spectrum disorder.

Patients characteristics related to antipsychotic medication switches: a two-year retrospective comparison

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Up to 60% of schizophrenia patients are refractory to antipsychotic medication treatment. And according to most guidelines, they could benefit from switching antipsychotic medication. However, one ignores how these guidelines are applied and how many switches are performed.

Objectives: To examine prescription patterns over a 2 year period and determine switching rates of antipsychotic medication. To evaluate patients' determinants related to switching antipsychotics.

Method: Chart review ($n = 200$) of prescriptions at T1 and T2 (July 1st, 2002, 2004). All treated patients carry diagnoses of schizophrenia or schizoaffective disorders.

Results: Switched group (SWG) patients are younger (38 vs. 44 years) than the unswicthed group (USG). In the SWG, paranoid schizophrenia (75% vs. 49%) is more prevalent with shorter duration of illness (12.6 vs. 17.6 years), and more hospitalizations (5.6 vs.3.6). For the USG, 72% are prescribed a second generation antipsychotic (SGA). In this sample, olanzapine is more often prescribed (60%) than risperidone (27%), clozapine (11%) and quetiapine (2%). For the SWG over 2 years, SGA use increased (from 37.5% to 75%), whereas the first generation antipsychotic use decreased (from 50% to 12.5%). Interestingly, risperidone use decreased from 50% to 12.5%; Olanzapine stayed at a steady 25%, while quetiapine and clozapine use increased respectively from 25 to 37%, and from 0 to 25%.

Conclusion: Second generation prescriptions increased in the SWG, and prescriptions types vary widely according to specific medication.

S05. Symposium: philosophy and neuroscientific psychiatry

S05.02

Schizophrenia and functional neuroimaging: distributed dysfunction and the assumption of modularity

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Background: Functional neuroimaging of persons with mental illness frequently assumes an etiology based in the dysfunction of

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anatomically and functionally specific "modules" in the brain. Schizophrenia, which is challenging in many ways, also challenges modularity. A prominent example of a modular hypothesis links working memory deficits in schizophrenia to decreased function in the prefrontal cortex, a result confirmed in several studies. Nonetheless, these studies are systematically blind to the alternative possibility that schizophrenia reflects dysfunction in broader, more distributed systems of the brain.

Methods: (1) To establish hypotheses about distributed cognition in health and illness requires new interpretations of functional neuroimaging. Modularity can be assessed by large scale meta-analyses of neuroimaging studies, illustrated here through the on-line database, Brainmap (www.brainmap.org). Such meta-analyses can establish meaningful baselines against which to assess claims that specific functions are implemented in particular brain regions. (2) In addition, several global measures of connectivity based in functional neuroimaging may provide measures of distributed dysfunction. One example is the data-driven technique of independent component analysis, applied to patients and healthy controls in an "auditory oddball" task.

Results: (1) The association of working memory and prefrontal cortex occurs at a rate not significantly different from chance, when one considers all areas engaged in working memory, and all tasks associated with prefrontal cortex. (2) Independent component analysis reveals unusual oscillations in distributed networks in patients with schizophrenia.

Conclusions: These results highlight distributed and dynamic properties of schizophrenia and may lead to increased insight into the symptoms of the illness.

S05.03

The relation of philosophy and 'neuroscientific' psychiatry

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Background: In the 1960's, Peter Winch argued that philosophy could both shed light on, but was also continuous with, the social sciences. Both were construed as broadly hermeneutic disciplines. But philosophy, in addition, could provide a further argument that such hermeneutic disciplines were fundamentally distinct from the natural sciences in the kind of insight into phenomena that they provided. In Sellars' phrase, the 'space of reasons' and the 'realm of law' were immiscible according to Winch.

The rise of 'neuroscientific' psychiatry at the potential expense of hermeneutic psychiatry raises the question again both of the relation between these two aspects of psychiatry and of their relation to philosophy. In this paper, I examine a model drawn from philosophy of non-reductive physicalism (the implicit metaphysics of Dennett's Intentional Stance and Davidson's Anomalous Monism) to see whether it provides an answer to the following question. Would psychiatry miss real features of the world if it adopted an exclusively 'neuroscientific' perspective?

Method: Philosophical analysis.

Results and conclusions: I argue that there is no 'theory neutral' answer to that question. The model can be interpreted as showing that there is a real pattern which is available to those initiated into the space of reasons. But it can be interpreted as showing that that pattern is just an artefact of adopting the perspective of the space of reasons. The answer is determined, in part, by antecedent assumptions about the nature of nature that philosophy can help in articulating and assessing.

S05.04

What is evidence?

J. Holthues. Department of Psychiatry, Charité, Berlin, Germany

Evidence is everything. A cause is most clear, obvious, perspicuous, plausible, proven, taken for granted, articulate, bright, clear-cut, definite, explicit, intelligible, limpid, translucent, lucid, perspicacious, plain, precise, unobscured, vivid, manifest, notorious, overt, patent, apparent, blatant, palpable, ostensible, as a matter of course…Natch! As sure as eggs is eggs! It's in no uncertain terms—just evident. Evidentiary evident… What is it?

It is, to start with the good news, a problem that even Edmund Husserl couldn't bring to an end. But looking at the evident, he shows us, how to deal with the problem in the mined area of neuroscientific discussions, where a lot of topics are claimed to be just evident.

S27. Symposium: forensic issues in psychiatry in Europe

S27.01

Criminal commitment laws in austria: recent developments, current problems

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During the 2nd half of the 20th century, most countries introduced new laws to regulate the treatment of the mentally ill, the mentally disturbed or the continuously dangerous offenders. In Austria, the respective laws provide criminal commitment for non-responsible (NGRI) and responsible mentally disordered offenders according to §21/1 and §21/2 of the Austrian penal code (StGB), for substance abusing offenders (§22 StGB) and for dangerous repeat offenders (§23 StGB).

Until the beginning of the 1990s, incidence and prevalence rates of mentally disordered offenders NGRI (§21/1 StGB) remained stable despite a reduction in mental hospital bed count by 47% and a reduction in the rate of involuntary admissions from 94% to 19%. Since then, however, Austria is confronted with an enormous increase in new admissions of offenders who are NGRI. We are able to show that this development cannot be primarily put down to bed closure, insufficient provision of outpatient services or the introduction of new civil commitment laws. Rather, the changed way general psychiatry is dealing with a high-risk group of severely and chronically ill patients may be a crucial factor. Incidence and prevalence rates of responsible mentally disordered offenders (§21/2 StGB) showed a similar development. In this group of offenders, however, the data available give rise to the suspicion that criminal commitment is increasingly misused as an instrument of preventive custody in case of sex offenders.

The practice described is extremely inefficient and expensive. Moreover, it seems questionable with respect to a successful mental health policy and alarming concerning the principles of law.

S27.02

The increasing number of forensic patients in Denmark—diagnoses and causes

P. Kramp. *Denmark*

Introduction: A connection between schizophrenia and violence has been established in many studies. The purpose of the study is to map out criminality and diagnoses among Danish forensic psychiatric patients.

Material and methods: This cross-sectional study completed 2000 recorded data including criminality, substance abuse and

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psychiatric diagnoses among all 330 forensic patients treated in Copenhagen Hospital Corporation. The material is analysed using logistic regressions.

Results: In this study 73% of the forensic patients are schizophrenics, 84% have an F20-spectrum disorder. A similar study completed 1987 found 137 forensic patients, 50% being schizophrenics. Today 10% of all schizophrenic men aged 20–44 years in Copenhagen are forensic patients. There are no difference between the forensic patients and other criminals concerning substance abuse or relations between type of crime and type of abuse. Schizophrenics have mainly committed violence and especially firesetting, the number being so high, that a substantial reduction could be observed in the Danish crime statistic.

Conclusion: The increasing criminality committed by schizophrenic patients is causing suffering for the victims, cost resources for the society and stigmatizes the patients.

S27.04

Forensic psychiatry in European Union member states

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Background and aims: An internationally standardised description of legal instruments regulating the disposal of mentally disordered offenders in European Union member states is missing. In recognising this gap the Health and Consumer Protection Directorate of the European Commision funded this study. The study aims at providing a structured description and cross-boundary comparison of legal frameworks relevant for forensic psychiatric assessment in European Union member states before the extension in May 2004. In addition, information on service provision and epidemiological data (prevalence rates, forensic bed rates, etc) are outlined.

Method: Information on legislation and practice concerning the assessment of mentally disordered offenders and epidemiological data was gathered by means of a detailed, structured questionnaire which was filled in by national experts.

Results: Legal frameworks for the assessment and reassessment of mentally disordered offenders and professional training standards in forensic psychiatry vary markedly across EU member states. There are also significant differences in service provision for mentally ill offenders and prevalence rates.

Conclusion: Clear definitions for forensic cases or capacities are lacking and standardised European indicators are not provided which is a serious obstacle for international comparison of efficacy or effectiveness of forensic approaches. Available data suggests an overall slow increase of forensic prevalence during the last decade

Currently a cross-boundary harmonisation of legal concepts appears hard to achieve.

S35. Symposium: transcultural aspects of mental disorders in eastern Europe

S35.01

Specific features of the assimilation of ICD-10 in Belarus

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Objective: ICD-10 classification was adopted in Belarus only at 2002, and the process of adaptation was rather difficult due to long time isolation of former Soviet psychiatry from the world psychiatric movement. The goal of the study was to investigate the first experience of the transition to ICD-10. The idea was that the comparative frequency of using of the different diagnostic units could be a sort of indicator—how these items got accustomed in the practice.

Method: The data regarding the diagnoses of the 22,090 patients who were treated in the Republican Mental Hospital in Minsk city.

Results: The main are the following: inexplicably small share of Alzheimer's disease (only 14.0% from 985 patients with dementia) and very big share of the vascular (atherosclerotic) dementia (41.4%); rare use of the category of the organic amnestic syndrom (22 times less than dementia); very extended use the diagnosis of schizophrenia (4330)—mainly paranoid (91.9%). Recurrent depressive and bipolar disorders were diagnosed 30 times less than schizophrenia, which reflects former Soviet tradition.

Conclusions: We suggest that most of the distinctions reflect the gap between habitual classification (adopted in former USSR ICD-9) and ICD-10, between former and today's ideas in the mind of psychiatrists. So it takes time to assimilate better the new classification, and further educational efforts should be done to improve it.

S35.02

Psychopathological peculiarities of anxiety and affective disorders in Kyrghyzstan

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1. Analyses of prevalence of anxiety disorders in Kyrghyzstan shows, that here, unlike in Western European countries and the USA, the leading kind of disorder is agoraphobia cum panic disorder, then GAD, adaptation disorders; PTSD and social phobias have practically common nature.

2. This phenomenon can be explained not only through the exposure of the disorders that depend on patients' asking for help, but also through the fact that the peculiarities of social life include orientation on the narrow circle of micro environment (family), and the macro environment has lesser importance. The population study of 2000 patients held at the territory of limited military conflict at southern Kyrghyzstan showed only the isolated instances of PTSD and prevalence of lingering adaptation disorders, connected with a sharp reduction of the economic status.

3. Somatisation is a dominating phenomenon of anxiety and depressive disorders. It could be analyzed in three variants:

- A genuine anxiety somatisation (GDA, PD)
- Anxiety-depressive somatisation (also adaptive disorders, dissociative disorders)
- Depressive somatisation (masked depression)
- Intermediate condition—inexplicable somatic complaints—and hypochondriac condition (cognitive-affective disorder).

The third variant is pseudo-somatisation: the distorted subjective image of a disease, adaptation image of a disease (AID).

4. Somatisation of anxious and depressive patients may result in their resemblance with somatomorphed patients at first stages of the case and treat their coming to a psychiatrist as a kind of an alibi for the proof of an inadequacy of evaluation of their condition.

S35.03

The transregional aspects of the alcohol consumption and its effects in Russia

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The prevalence of the alcohol-related psychoses and alcohol-related mortality including the acute poisoning with alcohol was estimated in the 77 regions of Russia during 1990–2001.

The analysis demonstrates that the 72% of murders, 42% of suicides, 53% of deaths related to any external reasons, 68% of the

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liver cirrhoses resulting deaths, 23% of cardio-vascular disorders leading to death and 25% of other deaths are due to alcohol.

Summing the data of the acute poisoning with alcohol and the other mortality rates makes the level of alcohol-related mortality per 100,000. This index demonstrates the direct and non-direct alcohol-related losses. It is the highest in the Far East, and Chukotsky Autonomic Region gives the highest index among the other Far East regions. Here the 46% of deaths are alcohol-related, e.g. these deaths are more or less premature. The other parts of the Far East give 36–43% of the alcohol-related mortality. The next regions of the highest alcohol-related mortality are Siberia (from 32% to 45%—Republic of Tuva), Urals (from 33% to 38%—Tumen Region), North-Western Region (from 32% to 38%—Republic of Komy). In the Central and Southern regions' alcohol-related mortality is 30–35%. It is noticeable that the alcohol-related mortality level is really high in Russia (to compare, it is 4.4% in the USA), and the difference between the regions of Russia is not significant.

Our calculation suggests that the 1% change of the alcohol consumption changes the mortality for 0.5% ($P < 0.00001$). So even the little decrease of the alcohol consumption (like 5–10% diminishing) can spare 100–200 thousand of lives per year.

S35.04

The dinamics of acute stress disorder in Beslan victims

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The act of terrorism in Beslan (North Osetia) 1–3 of September 2004 was characterized by exceptionally acute and severe psychic trauma for the population. Acute stress disorder (ASD) was diagnosed 6–10 days after the tragedy at the out-patient service of the Regional General Hospital of Beslan in 138 victims (hostages, 80%) (children, 56%; women, 37% and men, 7%). The symptoms of ASD were mixed with depression (grief) in 53%, phobic anxiety in 40% and other disorders in 7%. Two months later, during 2 weeks of work, acute PTSD (APTSD) was diagnosed in 77 victims (children, 22%; women, 58%; men, 20%). In comparison with the September period the need in psychiatric care decreased by about four times. The symptoms of APTSD were mixed with depression (grief) (50%) and somatic anxiety (42%) in adults hospitalized to General Hospital. The prominent positive dynamics of ASD with phobic anxiety in children receiving the adequate treatment and rehabilitation was revealed.

S35.05

Posttraumatic stress disorders in clinic of forensic psychiatric examination

T. Kharebava, G. Naneishvili, Z. Beria, M. Asatiani. *Research Institute of Psychiatry, Tbilisi, Georgia*

103 persons with marked mental disorders were subjected to forensic psychiatric examination. Relation between psychopathologic symptomatology and over marked psycho traumatizing movements was stated. Mental disorders lead to social disadaptation. Antilaw actions were marked with gravity, aggression and cynicism. Statistic analysis of the obtained data proves to indicate to chronic character of posttraumatic stress disorders underlining high social significance on the clinic of posttraumatic stress disorders study.

S34. Symposium: from normality to caseness

S34.01

The relevance of defining a case

N. Sartorius. *Geneva, Switzerland*

The definition of the threshold at which a phenomenon becomes a morbid condition of a symptom is of interest for science as well as for practice.

The threshold of caseness differs, however, from one discipline to another and from one study to the next. This makes comparisons of findings over time in the same discipline very difficult and across disciplines often impossible. In addition to scientists caseness is also a matter of intense interest for society which bases its legislation concerning illness on the definition of caseness. Those who experience the phenomena also have their word to say and define their individual thresholds of illness and caseness.

The presentation will discuss the criteria for caseness used by these diverse groups and make recommendations about ways to develop a common language about the definition of the threshold of morbidity.

S34.02

Caseness and the differentiation between disorders of functioning and disorders of capacity

M. Linden. *Charité and Rehab. Center Seehof, Teltow, Germany*

Background: An important criterion for caseness is disability as newly described in the WHO International Classification of Functioning, Disability and Health (ICF). which differentiates disorders of functioning from disorders of capacity.

Method: To improve measurement of capacity the "mini-ICF-P" has been developed. It allows to measures twelve disorders of capacity for which anchor definitions are given in a rating manual and which can be rated from "0 = no disability" to "4 = full disability". 125 inpatients from the Department for Behavioral Medicine at the Rehabilitation Center Seehof have been assessed with the mini-ICF-P.

Results: Significant global correlations were found between psychopathology, absenteeism from work and time on sick leave from work before admission. There were also indicators that different dimensions of psychopathology (e.g. phobia, depression) are related to different disorders of capacity and that longer duration of absenteeism from work is associated with a different spectrum of disorders of capacity than short-term sick leave.

Conclusion: The concept of disorders of capacity is an important extension to the description of psychopathological signs and symptoms. It is an additional and in daily practice very important dimension for defining caseness in mental disorders.

Literature: LINDEN M, BARON S: Das MINI-ICF-Rating für psychische Störungen (MINI-ICF-P). Die Rehabilitation 2005, 44, 144 – 151

S34.04

Does abnormal mean pathological?

M. Musalek. *Anton Proksch Institute, Vienna, Austria*

We all live in an artificial world of opposites: one of those often used in daily medical language are 'normal' and 'pathological'. In contrast to the view in which the words normal and pathological may be considered as autonyms representing end-points of an intervening continuum, pathology as a term belonging to the field of health and sickness cannot be reduced to an antithesis of normality; and therefore abnormal cannot

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be considered as equivalent to pathological. The continua 'normal-abnormal' and 'healthy-pathological' rather represent different independent (even though to some degree overlapping) dimensions with various facets: we may distinguish at least between a subjective, ideal, statistitical, and functional norm on one hand and between the different nature and manifold meanings of illnesses on the other. In order to understand better our daily medical work between normality, abnormality, pathology, disorders, illnesses, sickness and health, the different approaches concerning the definition of normality and abnormality as well as the various perspectives of the nature and meanings of sickness will be discussed in detail resulting in the presentation of a dimensional model in which 'normal', 'abnormal', 'healthy', and 'pathological' represent the corner points of a stage on which we daily act as medical professionals.

S34.05

What is a case? A new epistemology for psychiatric epidemiology

G. De Girolamo [1], M. Bassi [1], G. Neri [2]. [1] *Department of Mental Health, AUSL Di Bologna* [2] *Office of Mental Health, Emilia-Romagna Region, Bologna, Italy*

With the increasing number of settings studied by psychiatric epidemiology, the existence of different perspectives of observation has become evident. The traditional question raised by psychiatric epidemiology "What is a case?" can be answered differently by a traditional epidemiologist, by a clinician working in various community services or by a researcher dealing with health services research. In the community the traditional epidemiologist is faced with large numbers of respondents who present with fewer, minor and non-specific symptoms and is mainly interested in descriptive and analytic epidemiology. In community-based mental health services, the clinician is concerned with more severe disorders (e.g., psychoses, personality disorders, substance abuse, etc.), and is most interested in experimental studies to evaluate treatment effectiveness. Finally the health services researcher is mainly interested in large-scale, observational and qualitative studies. These three approaches may be defined as 'descriptive', 'treatment-oriented' and 'changemaker'. These differences will be exemplified by results of recent studies carried out by the authors in Italy.

W13. Workshop: mother–infant-interaction, maternal self-efficacy and the role of fathers in postpartum mental disorders

W13

Mother–infant-interaction, maternal self-efficacy and the role of fathers in postpartum mental disorders

C. Hornstein [1], M. Grube [2], C. Reck [3], T. Fuchs [3]. [1]*Psychiatric Department* [2]*Psychiatric Department* [3]*Psychiatric Department, University of Heidelberg, Germany*

Growing evidence from developmental and neurobiological research points out that there is a sphere of embodied intersubjectivity and mutual resonance which we share from the beginning with others as embodied subjects. Postpartum mental disorders have been shown to impair this mutual regulation of affect in the mother–infant interaction, possibly impeding the infant's emotional and cognitive development. The paper presents results of an ongoing study on mother–child interaction patterns in 28 postpartum depressed mothers and their infants, compared to the data of a healthy control-group. There is also evidence that women who experience a postpartum mental disorder report more negative cognitions than healthy mothers. Such negative beliefs are particularly important because they may predispose the mothers to maladaptive behaviour in the interaction, as well as to biased perception of their children's bonding behaviour. In order to examine this issue, mothers' sense of self-efficacy will be analysed in relation to diagnosis and to the actually observed behaviour in the mother–child interaction. Finally, although male partners may contribute to the mother's coping process, rather little is known about the impact of their behaviour on the mother–child-dyad. Data from 41 partners of women with postpartum psychiatric disorders will be presented and discussed.

W20. Workshop: sampling experiences in the flow of daily life

W20

Sampling experiences in the flow of daily life

I. Myin-Germeys [1], N. Jacobs [1], A. Smith [2], C. Henquet [1]. [1]*Social Psychiatry, University Maastricht, The Netherlands* [2]*School of Psychological Sciences, University of Manchester, UK*

Humans are constantly interacting with the world: the context influences every aspect of human behaviour. Therefore, especially in the realm of mental health, it becomes essential to investigate person-environment interactions. The experience sampling method (ESM) is a structured diary technique, which is used to study subjects in their daily life. It employs a random time sampling strategy to assess mental state and the context in which it is embedded, in the natural flow of daily life. ESM has been used successfully used to study fluctuations in symptoms in patients with psychosis, depression and bipolar disorder in relation to several environmental exposures such as stress and cannabis. Not only does this method provide insight in the underlying mechanisms and course of mental disorders, but it also aides the clinicians in formulating therapeutic options in individual cases.

Since ESM is conducted in the realm of daily life, the compliance of the subjects is clearly important. The first speaker of this symposium (Dr. N. Jacobs, the Netherlands) will provide evidence for the reliability and validity of data gathered with ESM. In addition, Dr. I. Myin-Germeys (the Netherlands) will present research findings on emotional and biological daily life stress sensitivity in schizophrenia and depression. Dr. A. Smith (UK) will examine the relationship between self-esteem, environmental stressors and coping styles in a group of undergraduate students identified as either at high or low risk of bipolar symptomatology. The last speaker of this symposium is Dr. C. Henquet (the Netherlands) who will report on genotype-environment interaction in psychosis vulnerability in daily life.

W08. Workshop: management of personality disorders in Romania

W08

Management of personality disorders in Romania

A. Nirestean [1], M. Lazarescu [2], M. Dehelean [2], D. Cosman [3], C. Friedman [4]. [1]*Psychiatric Clinic No. 2, U.M.Ph., Tg. Mures* [2]*Psychiatric Clinic, "Eduard Pamfil", U.M.Ph, Timisoara* [3]*Psychiatric Clinic, U.M.Ph, cluj* [4]*Psychiatric Clinic, U.M.Ph., Constanta, Romania*

Progressively, personality disorders are becoming a major subject for clinical and sociological studies in Romania. Thereby, any management strategy imposes gathering more perspectives.

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Therefore, in the last 15 years, epidemiological, clinical, nosographical and therapeutically approach of personality disorders implies a correlation with new social-economic conditions, the influence of demographic factors, the communities' traditions and customs, the dynamics of recent spiritual values.

Personality disorders' management must become an important part of national politics of mental health and asks for traditional or modern psychopathological theories as well as for moral values of present Romanian society and culture.

W06. Workshop: risk factors and predictors of PTSD in trauma survivors

W06

Risk factors and predictors of PTSD in trauma survivors

E. Klein [1], D. Koren [2], S. Gil [3]. [1]*Deprtment of Psychiatry, Rambam Medical Center* [2]*Department of Psychology, Haifa University* [3]*School of Social Work, Haifa University, Haifa, Israel*

PTSD develops in 15–25% of people who have been exposed to or witnessed an event that involves a direct threat to one's life or physical/psychological integrity. Time-limited responses develop in 50–70% of victims during the first 48–72 h (ASR) and in 30–40%over the first 4 weeks (ASD). Many of those with acute post-traumatic symptoms will eventually recover However, 30–50% of those with ASD, will develop PTSD. It thus appears that some people are more vulnerable than others to the pathogenic effects of trauma while others have neurobiological and psychological resources that make them resilient to the long term impact of traumatic exposure.

In this workshop various aspects of vulnerability to PTSD will be discussed with a focus on prediction and early identification of subjects at risk that should be the target for early therapeutic intervention. After a general overview by Dr. Klein, Dr. Koren will discuss the impact of physical injury on the risk for PTSD and present data showing increased vulnerability to PTSD in trauma victims with body injuries, and Dr. Gil will present data on the impact of memory for the trauma on the vulnerability to PTSD.

W05. Workshop: optimal doses of antipsychotics: impact of illness, patients and time

W05

Optimal doses of antipsychotics: impact of illness, patients and time

L. Janu [1,3], S. Rackova [1,3], J. Horacek [2,3]. [1]*Department of Psychiatry, University Hospital Pilsen* [2]*Prague Psychiatric Centre* [3]*Charles University, Prague, Czech Republic*

Background: Antipsychotics 1. and 2. generations are effective due to D2 receptor occupancy. The characteristic of antipsychotics, course of illness, individual variability and other reasons (especially compliance) are important for the optimal dose of antipsychotics.

Gender, differential blood-brain disposition, genetic vulnerability, receptor adaptation, individual sensitivity to D2 antagonism, course of illness and clinical (pathological) status are most potential factors influencing individual reactivity to antipsychotic medication and doses.

Acute phase: Schizophrenic patients can already develop some subjective sensations after only a few doses of antipsychotics in the first phasis (24–48 hours) of pharmacological treatment. This initial dysphoric reaction (IDR) is more often described in patients treated with antipsychotics 1 generation in comparison with 2 generation. Non-complinace and changes (increasing) in antipsychotic treatment are supposed outcomes of IDR.

Long-therm treatment: There is a number of adverse events regarding long-term antipsychotic treatment especially non-optimal D2 occupancy. The optimal dose of antipsychotics is a key of long-term outcome of schizophrenia treatment.

Consequences of IDR, non-compliance and adverse events are frequent hospitalisation, higher doses of antipsychotics, metabolic changes, increased suicidality, substance abuse. Data regarding doses of antipsychotics and adverse events (tardive dyskinezia, hyperprolactinemia, metabolic syndrome) will be discussed.

We will present theory, results of acute phases treatment and long-term outcomes and doses of antipsychotics. We will work with this data in case reports and model situations.

W01. Workshop: women in academic psychiatry across Europe: a monitoring project in progress

W01

Women in academic psychiatry across Europe: a monitoring project in progress

M. Amering [1], A. Riecher-Roessler [2]. [1]*Department of Psychiatry, Medical University of ViennaAustria* [2]*Psychiatrische Poliklinik, University Hospital, Basel, Switzerland*

The 2005 AEP workshop of the Section of Women's Mental Health on "Women's careers in academic psychiatry" brought to our attention the fact that we have no access to data that allow a European perspective on women's careers in academic psychiatry. At the same time it became very clear that such data would be valuable to us in order to compare women's career situations in our field across the European countries in order to highlight advancements, setbacks, and opportunities towards gender parity in academic psychiatry.

Michaela Amering and Anita Riecher-Roessler will inform about the section's interim efforts to obtain such data on a European level and plans for a monitoring project that could serve as a benchmarking system for European states and their efforts in the direction of the advancement of women in psychiatric research positions. The workshop will also serve as a platform for interested persons of different European countries in order to discuss the possibilities of a network of national efforts in the same direction and examine the possibilities of multi-centre projects designed towards the creation of a set of comparable data as well as evaluations and promotions of national and local conditions and activities.

CS06. Core Symposium: management of physical illness in people with mental disorders

CS06.01

Physical illness in people with mental disorder: first results of an international project and future plans

N. Sartorius. *Professor of Psychiatry, Geneva, Switzerland*

This presentation will describe a project recently undertaken by the International Association for the Promotion of Mental Health Programmes, a non-profit organization located in Geneva. The project was started because of alarming reports from many countries show-

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ing very high morbidity and mortality from physical illness in people with mental illness. Mortality and morbidity from physical illness was high in patients treated in institutions and in the community and in many instances physical illness was not recognized by the patients or the health authorities. The project will start with a review of evidence published in scientific literature and continue with the assembly of information from other sources. It is expected that it will result in guidelines and specific suggestions con-cerning the improvement of care for people with mental illness.

Some data about mortality in people with severe mental illness will also be shown. The results of a review of the literature concerning physical illness in people with schizophrenia and those with mood disorder developed in the course of this project will be presented by two other participants in the symposium.

CS06.02

Physical illness and schizophrenia

S. Leucht. *Klinik für Psychiatrie und Psychotherapie der Technischen Universität, München, Germany*

People with schizophrenia on average die 10 years younger than the general population. The reason for this increased mortality are not only the 10–15% lifetime suicide rates of the affected individuals, but also a number of physical disorders with an increased incidence compared to normal controls. Therefore, schizophrenia has been called a "life-shortening disease". Increased rates of hepatitis C, osteoporosis, poor nutrition, poor pregnancy outcome, substance abuse, smoking, sudden death, diabetes, obesity and HIV in schizophrenia have been reported. On the other hand, there also seem to be a number of medical peculiarities in the sense of decreased rates of e.g. certain forms of cancer and polyarthritis. However, to our best knowledge, no systematic review on the association between schizophrenia and physical illnesses is as yet available. The presentation will fill this gap by presenting the results of a comprehensive literature search (MEDLINE 1966–present) combining all general MeSH categories with the MeSH term for schizophrenia and related disorders. The results of the review will serve as a basis to develop a strategy to fight this unacceptable situation that is in part reflecting the stigma associated with mental illness.

CS06.03

Physical illness in people with mood disorders

P. Mackin, A.H. Young. *Department of Psychiatry, University of Newcastle, Upon Tyne, UK*

Mood disorders rank among the leading causes of disability, worldwide. Despite reports of increased rates of physical morbidity in people with mood disorders, the precise magnitude of this problem is unclear. A multi-national programme has been initiated to produce reports, based on the currently available literature, on the prevalence of physical illness in mental disorders. A systematic review of the worldwide published literature is being undertaken to examine the prevalence of physical illness in people with mood disorders. Over 65,000 publications have been identified from a comprehensive literature search, and relevant reports will be selected for inclusion in this systematic review. Available data regarding successful healthcare system intervention for the prevention and management of physical morbidity in this population will also be included in the review.

CS06.04

The assessment of quality of life in people with physical and those with mental illness

H. Katschnig. *Department of Psychiatry, Medical University of Vienna, Austria*

Over the last three decades, in addition to symptoms, Quality of life (Qol) has become a main focus of concern both in physical and mental illness. In somatic medicine life prolonging but disturbing treatments had raised the question whether one should only "add years to life", but also "life to years". Originally, Qol was conceived as the "subjective" Qol as seen by the patients—whose views had been increasingly neglected in an ever more technical medical environment. Subjective-well being as an indictor of Qol was later supplemented by criteria of functioning in daily life as reflected in the so-called health status instruments. When, from the early 1980's onwards, the concept of Qol was applied to mental disorders, a methodological problem arose: Subjective well being is basically related to mood and mood disturbances, and Qol assessment scales used in somatic medicine sometimes had a substantial item overlap with psychopathological items. Thus, the functioning dimension became more relevant, and also environmental assets—physical and social—came into the forefront. However, the assessment of Qol in persons with mental disorders still suffers from a number of measurement fallacies, which will be discussed in relation to co-morbid physical disorders. The "standard drift fallacy", i.e. the tendency to lower one's standards over a prolonged course of an illness and to consequently overvalue one's quality of life, might be especially relevant in this situation.

S24. Symposium: pharmacogenetics of psychotropic drugs: predicting clinical efficacy and side effects

S24.01

Pharmacogenetics of antidepressants efficacy

A. Serretti, P. Olgiati, L. Mandelli. *Vita-Salute University, S. Raffaele Hospital, Milan, Italy*

Pharmacogenetic studies in mood disorders mainly involved short-term antidepressant response. Antidepressant drugs are the first line of treatment for major depression but the therapeutic response in clinical practice is expected in about two-thirds of patients. The large inter-individual variability in the pharmacological response pattern has been partially ascribed to heritable factors. During the recent years the possible influence of a set of candidate genes as possible genetic predictors of antidepressant response efficacy were investigated. The functional polymorphism in the upstream regulatory region of the serotonin transporter gene (5-HTTLPR), the A218C gene variant on the tryptophan hydroxylase gene (TPH), the 102TC variant in the 5HT2A receptor, the G-protein beta3-subunit (Gbeta3) C825T gene variant, the glucocorticoid receptor-regulating cochaperone (FKBP5) and the circadian locomotor output cycles Kaput (CLOCK) gene variants were independently associated with short term SSRIs antidepressant efficacy. The effects of 5-HTTLPR and TPH polymorphisms were more pronounced in subjects not taking pindolol. Marginal associations were reported for ADRB1, ACE I/D, BDNF and IL-1beta. DRD2, DRD4, Mao-A, SERT-STin2, 5HT6, NOS gene variants were not associated with outcome. Although in its preliminary phase, the results obtained in the pharmacogenetics of antidepressants are promitting for an individualized therapy.

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S24.03

Large scale association study on short-term response to haloperidol

D. Rujescu [1], I. Giegling [1], M. Schäfer [2], N. Dahmen [3], T. Sander [4], A. Szegedi [6], M.R. Toliat [4], H.H. Stassen[5]. *[1]Department of Psychiatry, University of Munich [2]Psychiatry, Hyssen-Stift, Essen [3]Department of Psychiatry, University of Mainz [4]Max-Delbrück-Centre, Berlin, Germany [5]Research Department, Psychiatric University Hospital, Zurich, Switzerland [6]Department of Psychiatry, University of Berlin, Germany*

Haloperidol is highly efficient in the treatment of acute psychosis, especially when severe symptoms predominate. The dopamine hypothesis of schizophrenia as well as the fact that dopamine receptors are the primary targets in the treatment of schizophrenia, prompted the investigation of genes involved in dopamine neurotransmission in response to treatment. We could recently demonstrate that response to haloperidol, a typical antipsychotic, is associated with an SNP in the 3′ region of the dopamine D2 receptor (DRD2) gene, although schizophrenia per se is not associated with this SNP. This study investigates the association of response to short-term haloperidol treatment with 120 microsatellites and SNPs in various candidate genes selected based on their role in neurotransmission.

One hundred patients with acute psychosis (schizophrenia, schizoaffective, brief psychotic, and substance-induced psychotic disorder) were treated with haloperidol for up to 28 days. Diagnosis was established by applying the SCID I and II interview. Patients were assessed at baseline and on days 3, 7, 14, 21and 28. Improvement and response were measured by using the positive and negative syndrome scale. Haloperidol plasma levels were also obtained. We will present novel data on this ongoing large-scale association study on response to haloperidol. Genotyping of further SNPs and microsatellites is under way.

S33. Symposium: psychiatry for the 21st century

S33.01

Psychopathology in the era of neuroscience

W. Gaebel. *Department of Psychiatry, Heinrich-Heine-University, Dusseldorf, Germany*

Successful etiopathogenetic research depends on reliable and valid characterization and diagnosis of disorders. Under clinical and research conditions, this is usually accomplished by means of contemporary diagnostic systems such as DSM-IV or ICD-10. It is questionable, however, whether this operationalized descriptive approach generates phenotypes homogeneous and valid enough as the starting point for the sophisticated research methods of neuroscience and molecular biology. The emergent neurobiological discoveries of normal and abnormal brain function will have distinctly less clinical relevance and meaning if there is no parallel development of the capacity to delineate and quantify specific behavioral phenomena bridging the gap between mind and brain.

Accordingly, in addition to a more syndrome- or even symptom-oriented approach, the traditional psychopathological systems should be systematically augmented or partly replaced by a more experimental and functionally oriented approach towards processes of perception, cognition, emotion, motor function, and others—both from an objective and subjective perspective. As in proposals for DSM-V, endophenotypes—i.e. intermediate neurobiological phenotypes that can be linked to a particular genotype and behavioral phenotype—using measures of neuroimaging, cognitive function or neurophysiological testing are akin to this kind of approach.

Concepts, methods, and examples of future developments will be presented.

S33.02

The future approach in diagnosis and classification

F. Thibaut. *Department of Psychiatry, University Hospital Ch. Nicolle, INSERM U 614, University of Medicine, Rouen, France*

In medicine, physicians recognize specific symptoms (non-specific markers of the disease, e.g. fever), syndromes (groups of symptoms that tend to co-occur, e.g. cough, fever and chills) and diseases (syndromes in which the pathophysiological mechanisms are understood, such as pneumococcal pneumonia). In psychiatry, most of the psychiatric diagnostic categories are still at the syndromal level rather than the disease level. Psychiatrists have tried to define arbitrarily, using two diagnostic systems DSM-IV and ICD-10, where the boundaries between categories of mental disorders can be drawn. However, diagnostic categories are still relatively broad and heterogeneous with respect to underlying aetiology and mechanisms. The clinician must consider the heterogeneity of the diseases which may be associated with heterogeneity in treatment response and course. Considering research studies, narrowing the diagnosis is an important step in ensuring that a homogeneous sample with the same aetiology is studied. Patients could be divided according to clusters of specific symptoms, neuropsychological tests, imaging studies, electrophysiological studies… On the other hand, too much narrowing could lead genetic studies to false negative results and to missing a gene that is expressed differently in different individuals (e.g. in spectrum related disorders). Using genetic studies, some examples will be discussed.

S33.03

Ethical issues in psychiatry for the 21st century

P. Cosyns. *Department of Psychiatry, University Hospital of Antwerpen, Antwerp, Belgium*

Progress in the neurosciences, the rediscovery of the role of values in the practice of psychiatry and a rapid changing socio-cultural context are main factors shaping the ethical issues in psychiatry for the 21th century.

Psychiatry must redefine itself on the basis of its scientific foundations. Progress in mastering human genetics and the development of implanted brain devices generate new ethical problems that we as a profession must anticipate.

The overriding importance of values and meanings in clinical psychiatry is perceptible through the growing acceptance within the AEP of ‘Values-Based medicine’ besides the well-known ‘Evidence-Based medicine’. At societal level there is the growing request of patients and their families to respect their autonomy in the medical decision making process. We will also discuss the impact of the increasing number of laws in each European country that directly interfere with the physician-patient relationship.

We need to develop a culture of constructive debate on ethical issues within the profession and with outsiders (patients organizations, the public in general, politicians, lawyers…). It may be a goal for the AEP to organize this at a European level in the next future.

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S28. Symposium: treatment of sexual dysfunction

S28.01

Prevalence of sexual dysfunction

R.T. Segraves, K.B. Segraves. *Psychiatry, Case School Medicine, Cleveland, OH, USA*

Epidemiological studies have found a high prevalence of sexual dysfunction in Europe, Asia, Africa, North and South America. Studies of psychiatric patients have indicated a very high prevalence of sexual dysfunction in patients with anxiety, affective and psychotic disorders. Our sexual behavior is multidimensional with psychological and biological determinants. The treatment of sexual disorders should fall under the purview of psychiatry.

S28.02

Drug treatment of premature ejaculation

M.D. Waldinger. *Department Psychiatry and Neurosexology, Haga Hospital Leyenburg, The Hague, The Netherlands*

Until the 1990s, a major problem in drug treatment studies of premature ejaculation was the lack of well-controlled studies. However, in recent years the methodology has been improved by introduction of the intravaginal ejaculation latency time (IELT) as a standardized measure of the ejaculation time, the use of a stopwatch, a baseline period, and a quantified definition of premature ejaculation.

The introduction of the selective serotonin reuptake inhibitors (SSRIs) meant a revolutionary change in the neurobiological understanding of and drug treatment of lifelong premature ejaculation. A meta-analysis of 35 SSRI and clomipramine studies, has shown that daily treatment with paroxetine exerts the strongest ejaculation delay. Interestingly, both animal and human studies have shown that of all SSRIs daily treatment with fluvoxamine has the least ejaculation delaying effect.

Sexual psychopharmacological research has provided evidence that premature ejaculation is highly associated with central serotonergic neurotransmission. In addition, neuroanatomical studies have shown that specific centers in the brain mediate the ejaculation process. Moreover, brain imaging studies demonstrated that ejaculation is associated with dopamine release in the meso-diencephalic region.

By applying the 0.5 and 2.5 percentiles as medically accepted standards of disease definition on stopwatch data of the IELT values in a multi-national random sample of IELT values, Waldinger et al. have proposed to define premature ejaculation as a neurobiological dysfunction with an unacceptable increase of risk to develop sexual and psychological problems anywhere in lifetime, and showed that IELT values of less than 1 min may be considered as symptoms of ejaculatory dysfunction.

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S28.03

Aging and male sexuality

R.C. Schiavi. *Department of Pschiatry, Mount Sinai School of Medicine, New York, NY, USA*

The high prevalence of chronic disorders in the aged has fostered the unwarranted conclusion that impotence has an organic basis. The tendency to interpret an association as having causal significance or to view causation as dichotomous (either organic or psychogenic) may lead to inaccurate views about the nature of sexual problems in the aged.

Over the last 25 years we have witnessed the availability of an ever-expanding panoply of psychological and medicam approaches to correct erectile failure. A significant therapeutic contribution is the introduction of peripherally acting type-5 phosphodiesterase inhibitors for the treatment of erectile difficulties. A note of caution should be raised, however. Aging men and their partners, depending on their expectations and motivation, may benefit from pharmacological interventions, but if not adequately evaluated and informed may be misled by interpreting a natural or psychologically induced, age related, decreased in erectile firmness as a medical issue or conversely assume that the decrease in erectile firmness is due to aging ignoring an underlying medical problem.The emrgence of oral medications for erectile dysfunction has blurred the distinction between specific therapeutic needs and unrealistic social expectations and demands for enhanced sexual performance. The value of these agents needs to be considered judiciously, together with other psychosexual and medical interventions, within an integrated view that takes into account psychological and relationship aspects which are important for sexuality and contentment as we grow old.

S28.04

Medications and human sexuality

R. Balon. *Department of Psychiatry and Behavioral Neurosciences, Wayne State University, Detroit, MI, USA*

Two major findings highlight the complex relationship between human sexuality and various medications: a) sexual side effects associated with various psychotropic and other medications; and b) efficacy of phosphodiesterase-5 inhibitors in male erectile disorder.

Numerous medications, namely antidepressants, antipsychotics, cardiovascular medications, chemotherapeutic agents and others, frequently negatively impact various phases of the sexual response cycle (desire, arousal, orgasm). Some medications, e.g. bupropion, may have a positive effect on sexual functioning. The pathophysiology of medication associated sexual dysfunction is usually a complex one. There is a dearth of data on the prevalence and management of medication-associated sexual dysfunction from well-conducted randomized trials. The management of sexual side effects associated with medications is thus still an art rather than a science.

On the other hand, the recent developments in sexual pharmacology, such as the discovery of phosphodiesterase-5 efficacy in male erectile disorder, and the use of selective serotonin reuptake inhibitors in premature ejaculation demonstrate that medications could be useful in management of sexual dysfunction, including sexual dysfunction associated with medications.

This presentation will critically review the current approaches to sexual dysfunction associated with various medications, and discuss the future directions of sexual pharmacology, such as the use of hormones, dopaminergic drugs and other pharmacological strategies. Last but not least, the presentation will focus on the fact that even medication-associated sexual dysfunction should be seen as a complex affair involving biological and psychological factors.

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CS07. Core Symposium: transcultural aspects in psychiatric treatment

CS07.01

Transcultural aspects of psychiatric treatment

R. Bennegadi. *Paris, France*

The mental health covers several aspects within the public health. When a certain harmony between the personality and the environment emerge of the strategies of a person in migratory situation, it adapts to the change and finds its clear answers, certainly sometimes with a psychic price. From the moment when the process of rebalances is not effective, it appears a series of signs, symptoms, behaviors which evoke the psychic suffering and which ,in certain cases, can generate difficulties that can be expressed in various manners and with various degrees of intensity. Especially, the expression of the psychic suffering uses the concepts, the forms and the explanations available to the person, whatever her culture.

The Center F. Minkowska is a clinical structure governed by the law 1901. This structure is presented in the form of médico psycho social center for migrants and refugees. This center exists since 40 years and is given a public financing.

The consultations are free and the care is ensured by made up teams psychiatrists, psychologists, social workers and medical secretaries. Let us specify that the center receives adult and children of all Paris and the Paris region. Several geo-cultural areas are concerned, Africa, the Maghreb, Asia, Portugal and Lusophone-speaking countries, Spain and Spanish-speaking, the countries Turkey and the Central Europe. The characteristic of these teams consists in the fact that the patients can express themselves in their mother tongue, if that proves to be essential, the therapeutists are trained with the intercultural competence and able to give the right measurement of the cultural share in the therapy. The other remarkable aspect consists in the flexibility of the teams in their relations with the actors of psychiatry and childpsychiatry, the psychological school structures, the G.P. and the social workers.

The core of all these approaches, beyond the humanistic dimension , can be defined as the concern of taking in account of the confrontation of explanatory models, one represented by the expression of the patient who unrolls his speech, uses his concepts, convenes its cultural representations and sometimes thanks to the use of its mother tongue, the other, that of the therapeutist who proposes or reframes symptoms throughout his own models, his training and his experience, without forgetting that this exchange is made with a therapeutic aim.

Data and clinical examples will be presented to illustrate this clinical medico anthropological approach.

CS07.02

Mentally ill turkish immigrants: culture-specific characteristics of illness and their relevance for outcome

M. Franz, C. Lujic, E. Koch, B. Wüsten, N. Yürük, B. Gallhofer. *Giessen, Germany*

Objectives: To provide information how to improve treatment offers for mentally ill Turkish immigrants in Germany. This study aims at exploring comprehensively cultural differences between Turkish and German patients with respect to illness-relevant concepts and, secondly, to identify culture-specific predictors for treatment outcome and service utilization.

Methods: German (n = 175) and Turkish (n = 175) inpatients with F2, F3, F4 and I20-25 disorders according to ICD-10 will be interviewed at admission and end of their clinical treatment. The interviews are structured and conducted in the native language of the patient.

The two groups (matched on diagnosis, age and sex) are compared with regard to subjective illness beliefs, stress coping, psychopathology, symptom presentation, personality, social support, critical life events, subjective quality of life, service utilization, need of care, treatment motivation, satisfaction and outcome, acculturation and stress due to migration (in Turkish participants)

Results/discussion: First results reveal sociocultural differences with regard to subjective illness beliefs, symptom presentation, stress coping, subjective quality of life, symptom distress and indicators of treatment outcome. The personal belief about treatment effectivity and the perceived social support from friends are associated with positive treatment outcome in German patients. In Turkish patients beliefs about personal control over illness, the degree of somatization and acculturation, stress due to migration and the perceived support from family are relevant predictors for outcome.

CS07.03

Cultural competence in mental health care: a review of model evaluations

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Background: Cultural competency in is now a core requirement for mental health professionals working with culturally diverse patient groups. Cultural competency training may improve the quality of mental health care for ethnic groups.

Aims: To review the literature on the effectiveness of models of cultural competency.

Method: A systematic review of evaluations of cultural competency education orcompetent service delivery. We undertook a narrative synthesis of the data.

Results: Of 109 potential papers, only nine included an evaluation of a cultural competency model of service delivery or education. All nine studies were located in North America. Cultural competency included modification of clinical practice and organizational performance. Few studies published their teaching and learning methods. Only three studies used quantitative outcomes, one of these showed a change in attitudes and skills of staff following training. The cultural consultation model showed evidence of significant satisfaction by clinicians using the service. No studies investigated service user experiences and outcomes.

Conclusions: There is limited evidence on the effectiveness of cultural competency training and service delivery. Further work is required to evaluate improvement in service users experiences and outcomes.

S07. Symposium: antenatal stress, anxiety and depression and effects on the child

S07.01

Comparison of the hypothalamic–pituitary–adrenal axis in depressed and healthy pregnant women

V. O'Keane, S. Lightman, V. Glover, K. Patrick. *London, UK*

The now established finding that rates of depression in pregnancy are probably higher than in the postpartum period, has profound potential significance for human health. Developmental research in perinatal

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psychiatry has focused on the impact of postpartum depression on the child, to the neglect of antenatal psychological stress, in spite of the emerging consensus in the obstetric literature that chronic psychosocial stress can reduce gestational length and baby weight. The mechanism mediating the associations between psychological stress during gestation in animals and poor outcome in the offspring is frequently hypothesized to be overdrive of the maternal hypothalamic–pituitary–adrenal (HPA) axis, resulting in altered regulation of glucocorticoid receptors (GR) in the brain of the developing fetus, and consequently a permanent "resetting" of the fetal HPA axis. This altered set-point is thought to underlie behavioural alterations in the offspring, some of which are consistent with depressive illness. We have tested the hypothesis that the HPA axis changes associated with depression occur also in pregnant women who are depressed, leading to high levels of cortisol, ACTH and CRH in the maternal circulation of depressed, compared to psychologically healthy, pregnant women.

Morning blood samples were taken from 40 depressed pregnant women and matched pregnant controls sequentially at fixed points during pregnancy for measurement of cortisol, DHEA, ACTH, CRH, oestriol and progesterone. Morning and evening salivary cortisol and DHEA-S levels were also evaluated during the third trimester. There was evidence of oversecretion of cortisol in depressed, compared to healthy women. These results will be presented.

S07.02

Depression in pregnancy and post partum—symptoms and function of the HPA axis

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Background: Depression during pregnancy is at least as common as that post partum, but has been little characterized. Cortisol rises steeply during pregnancy, peaks during delivery and then falls postpartum. This could contribute to different patterns of symptoms over this period. The aim of the study was to test the hypothesis that depression in pregnancy is more similar to melancholic depression, which is associated with high cortisol, and post partum more similar to atypical non-perinatal depression, which is characterized by low cortisol levels.

Methods: The structured clinical interview for diagnoses (SCID) was carried out at 6 weeks postpartum, with a consecutive cohort of 816 women. They were asked about symptoms both in the antenatal and postnatal period, and were included even if the symptoms lasted less than 2 weeks. A sub sample collected saliva for assessment of the diurnal variation of cortisol at 36 weeks antenatally and 6 weeks postpartum.

Results: The ratios of brief, minor and major episodes differed significantly antenatally and postnatally, with more minor and major episodes in pregnancy. There were more melancholic symptoms in depression in pregnancy compared with postpartum, and more overeating in depressed women postpartum. Postpartum depressed women showed a blunted cortisol response to awakening.

Conclusion: The observed differences in symptom profile, severity of depression and the pattern of the diurnal variation of cortisol, support the hypothesis that antenatal depression is more of the melancholic type, and postnatal more atypical.

S07.03

Effects of antenatal stress/anxiety on the child; implications for psychiatry

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Background and aims: Animal research has shown that antenatal maternal stress results in altered behaviour and cognitive development of the offspring, together with a reprogramming of the function of the HPA axis. The aim of our research is to determine if the same applies in man.

Methods: Using the data from the ALSPAC community cohort, we have followed a group of women and children (n = 7, 363) from pregnancy, using self-rating questionnaires. Diurnal saliva cortisol was also collected from a sample of the 10-year olds (n = 74).

Results: If the mother was in the top 15% for anxiety at 32 weeks gestation, this doubled the risk for behavioural problems for the child at 7 years, after allowing for multiple co-variates including postnatal anxiety. Maternal antenatal anxiety at 32 weeks was significantly associated with awakening and afternoon cortisol after accounting for obstetric and socio-demographic risk (partial correlations were.32 and.25, $P < 0.05$). This link was not apparent with postnatal anxiety.

In a separate new study we have shown that the mother's experience of life events during pregnancy, especially problems with the partner, are strongly linked with low scores on the child's Bayley Mental Developmental Index score at 18 months.

Conclusions: Antenatal stress/anxiety can result in both behavioural and cognitive problems in the child, and in alteration of the function of the HPA axis. We suggest that women should be screened in early pregnancy for mental illness, stress, and problems with the partner, and given appropriate support.

S07.04

Stress and stress hormone during fetal life—associations with indicators of child health

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Background: Based on animal experiments it has been hypothesised that intrauterine exposure to stress and the stress hormone cortisol may influence the development of the brain as well as the endocrine and cardiovascular system.

Methods: In the Aarhus Birth Cohort we have tested this hypothesis at various levels. The association between maternal self reported stress and indicators of fetal brain development was tested in a cohort of about 5000 children followed from early pregnancy to the age of 10 years.

We also present the results of our findings from a smaller sub-cohort of about 600 children, where salivary cortisol was collected morning and evening twice during pregnancy.

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Results: We found no association between self-reported stress and head size at birth, but found that the prenatal stressed were more likely to be mixed-handed and inattentive/hyperactive. In the sub-cohort there was no or weak association between exposure to life events and salivary cortisol. Only women stressed by many life events during the second trimester had a significant higher evening cortisol around week 30 of gestation. In this cohort we found a negative dose response association between salivary cortisol and birth weight. The evening cortisol level in week 30 of gestation was the single measure strongest associated with birth weight. We also found that this antenatal measure was also associated with a higher risk of overweight at the age of 10 years.

Conclusions: Stress may be an epigenetic factor with influence on brain development. The cortisol findings support the programming hypothesis.

S15. Symposium: genome-based therapeutic drugs for depression

S15.01

Gene expression analyses of a mouse fibroblast cell line after antidepressant treatment

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Background and Aims: Antidepressant response varies between individuals, and is in part determined by genetic factors. Response is likely to be effected through complex molecular mechanisms including variations in transcription and post-translational mechanisms. We tested the hypothesis that two antidepressants, escitalopram (an SSRI) and nortriptyline (a pronoradrenergic tricyclic antidepressant), exert their effect through alterations in expression levels of a number of neurotransmitter and drug-transport associated genes. The loci tested were: serotonin transporter (5-htt), brain-derived neurotrophic factor (Bdnf), glucocorticoid receptor (Nr3c1), P-glycoprotein 1a and 1b (Abcb1a and 1b), P-glycoprotein associated protein 1 (Abcc1) and FK-506 binding protein 5 (Fkbp5).

Methods: Mouse fibroblast cell line L929 was cultured and treated with either of the two antidepressants at concentrations of either 1 or 10 μM. Cells were harvested after 30 min, 24 or 48 hours incubation with the antidepressant and RNA extracted. cDNA was generated and used to perform quantitative RT-PCR using the ABI 7900. Results were normalised to a variety of housekeeping genes to control for inter-well variation in template amount.

Results: Results of non-parametric tests suggest that 5-htt, abcb1a, abcc1 and Fkbp5 are differentially expressed in the presence of antidepressants. The effects are observed over varying treatment times and at different drug concentrations.

Conclusions: These data suggest that antidepressants might exert some of their effect through changes in expression levels of genes involved in serotonergic neurotransmission (5-htt), regulation of glucocorticoid receptor function (fkbp5) and drug transport (abcb1a and abcc1).

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S15.02

Global analysis of gene and protein expression in rat models of depression with analysis of gene-environment interaction and antidepressant effects

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Background and aims: The simultaneous and wide-scale analysis of gene and protein expression provides a powerful strategy for the exploration at molecular level of complex pathophysiological mechanisms, such as the response to treatment with psychotropic agents. GENDEP is an Integrated Project that combines large-scale clinical pharmacogenomic studies on depressed patients with preclinical investigations on animal models, focusing on treatment with proserotonergic and pronoradrenergic antidepressants.

Methods: Two different, complementary rat models of depression were used: the flinders sensitive line (FSL) and the learned helplessness. FSL rats were additionally subjected to a maternal separation protocol to investigate the impact of gene-environment interaction. Animals were chronically treated with escitalopram or nortriptyline, with behavioural studies and transcriptomic and proteomic profiling, in order to identify novel genes and gene products differentially expressed in the different paradigms. Transcriptome analyses were performed from prefrontal cortex and hippocampus using Affymetrix GeneChips, whilst for proteomics two-dimensional electrophoresis with mass spectrometry was used. Further proteomic studies, including functional investigations focusing on the detection of protein phosphorylation changes, were performed on both total extracts and purified synaptic terminals. Finally, modifications of synaptic plasticity (LTP) in hippocampus were investigated by electrophysiology with parallel measurements of molecular correlates.

Results and conclusions: Preliminary results on proteome and transcriptome analysis of escitalopram treated rats allowed the identification of molecular and functional correlates of vulnerability to the disease, the effect of early-life stress and the response to pharmacological treatment.

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S15.03

Pharmacogenetics response to antidepressants

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Currently, the selection of an antidepressant drug for an individual patient is still a matter of "trial and error". Pharmacogenetics holds the

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promise to fill this gap of knowledge. The broad inter-individual variability of the response to an antidepressant drug proposes that DNA-sequence variations as the most important source of inter-individual differences present as strong candidates for determining individual drug response.

Yet, not a single, strong and robust genetic predictor of response to any specific subgroup of antidepressants has been found so far. This is likely to be due to multiple reasons: (a) a genome wide approach is not feasible up to now and known candidate genes might not be the valid targets, (b) multiple interacting genetic variants, each with only a modest or mild effect, might contribute, (c) clinical data were mostly obtained from retrospective studies without sufficient standardisation, (d) the true relationship between genetic variation and biological drug effects might be blurred by the invalidity of rating scales.

We will review the current evidence of pharmacogenetics of newer antidepressants. We also present a study programme on two diverse antidepressant drugs, addressing most of these difficulties in unipolar depression (e.g. substituting diagnostic and psychopathological measures by neurobiological phenotype characterisation; highly standardised treatment programme for exclusion of interfering effects). First results will be demonstrated.

S15.04

Gene-environment interaction in an animal model of depression. Effects on adult behavior and brain

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Background: Both genes and environment play a role in depression. Data indicate that in addition to monoamines, neuropeptides and hippocampal cell loss/neurogenesis may be important in pathophysiology/treatment of depression. Finally, it is not clear whether early intervention could alleviate/prevent the disorder. Animal models have been developed to study depression: (i) a genetic model, the flinders sensitive line (FSL) rat, (ii) an environmental model, early maternal separation that mimics early life trauma in humans - experiences that predict adult life psychopathology. Consequently, we investigated gene-environment interactions and effects of SSRI escitalopram in FSL and their controls, the FRL rats.

Methods: We superimposed early life maternal separation on the FSL and FRL rats and studied behavior when the animals reached adulthood, and brain neurochemistry/cell proliferation postmortem. On postnatal days (PND) 2–14, FSL and FRL pups were maternally separated. Escitalopram or vehicle were started on PND 44. Porsolt swim test was done on PND 64-65.

Results: Baseline FSL-FRL differences were found in the swim test, brain neuropeptides and cell proliferation. Moreover, maternal separation and escitalopram also differentiated between the strains.

Conclusions: Both genes and environment play a role in "depression" but the consequences of early life events are more deleterious in genetically vulnerable individuals. Neurochemical and cell proliferation changes indicate that we may have identified some biological correlates of depression. Lastly, a question raised is whether early drug intervention should be explored as a potential strategy to alleviate adult life psychopathology.

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S15.05

Genetic association data from GENDEP, a multicentre European study

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Background and Aims: Despite the availability of a number of different antidepressant medications, about 30–50% of patients with depression will show inadequate therapeutic response to these drugs. GENDEP (Genome-based therapeutic drugs for depression) is a European multicentre integrated pharmacogenomics study aiming to identify genomic and proteomic correlates of antidepressant response.

Methods: In the clinical component of GENDEP, the inclusion criteria are: major depression of at least moderate severity, and white European ethnicity. Subjects are randomly allocated to two antidepressants: escitalopram (proserotenergic) and nortriptyline (pronoradrenergic), with serial clinical ratings and collection of clinical samples. In our first wave of genetic association analysis, we are genotyping SNPs and repeat polymorphisms in 11 candidate genes. CYP2D6 and CYP2C19 genotyping is being conducted using the AmpliChip CYP450 array.

Results: There was a significant association between response on the MADRS in an intention to treat (ITT) analysis and the serotonin transporter. For the escitalopram treated subgroup, there was a significant association between response on the MADRS in an ITT analysis with CYP2C19. There was a trend for association between CYP2D6 and drop-out status.

Conclusions: The 5-HTTLPR finding replicates findings of many other investigators (Smits et al., 2004). We have previously reported an association between CYP2C19 and response to tricyclic antidepressants (Tandon et al, 2002). Further analysis will be possible once more phenotypic data are available.

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S41. Symposium: ethical issues in geriatric psychiatry

S41.01

Ageing, mental health, mental disorders—ethical issues

N. Tataru. *Psychiatry Ambulatory Clinic, Oradea, Romania*

After a short review of ethics in psychiatry and in old age psychiatry we'll talk about ageing, its challenges and the future challenges and

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mental health programmes in psychiatry and mental disorders. A morbid ageing is characterized by a process presenting clinical disorders which affects the health.

We also study the ethical aspects in research and treatment of mental illness in the elderly. Medical progress is based on research. In medical research on human subject, considerations related to the well-being of it should take precedence over the interest of science and society. Elderly persons with or without dementia must be granted equal opportunity for participation in research as all other persons. They should not be excluded at forehand from the potential benefits of research. All research participants have a right to know or not to know results and diagnostic changes. Information on dementia research proposals given to elderly patients and carers should not use euphemistic wordings with respect to diagnosis and the aim of study.

Serious ethical challenges for psychiatry are to cut mental health costs and to provide care to as many as possible. Ethical problem especially for all forms of dementia is the decision about the right time to transfer the patient to a nursing centre and to reduce the therapeutic programme using expensive drugs. We have also to improve the quality of life of all elderly mentally ill patients, including those with dementia and to solve the stigma and discrimination against the elderly with mental problems.

S41.02

Ethics and research in dementia

J.P. Warner. *Imperial College, London, UK*

Fundamental ethical principles collide when individuals with dementia are recruited for research studies. Many people, even with mild-moderate dementia, are unable to give fully informed consent regarding participation. Some putative treatments are ineffective and some treatments have emerged as being harmful following clinical trials. People with dementia, carers, scientists, clinicians and research funders all may have agendas that skew the equipoise that should be present when considering research. In this presentation I will outline the ethical conflicts inherent in dementia research and seek, with audience participation, pathways to resolve some of these conflicts.

S41.03

The wish to die in old persons

M. Linden. *Charité and Rehab. Center Seehof, Berlin, Germany*

Background: It is debated whether it is natural for older persons to wish to die, and eventually kill oneself.

Methods: A community sample of 516 persons aged 70–105 years was extensively investigated by psychiatrists. Diagnoses were made according to DSM-III-R and by clinical judgment. It was tried to find examples of "pathology free wishes to kill oneself".

Results: 115 out of 516 very old (70–105 years) persons said at the time of investigation that they wanted to die or felt life as not worth living (HAMD score 1, 2, or 3), which represents 21.1% of the community population. Suicidal intentions were in all cases associated with at least one specified diagnosis according DSM-III-R.

Conclusion: The results of this study strongly suggest that the wish to be dead in the very old is most probable, and suicidal intentions are definitely, associated with psychiatric disorders.

Literature: Linden M, Barnow S: The wish to die in very old persons near the end of life: A psychiatric problem? International Psychogeriatrics 1997;9:291–307.

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S41.04

Ethics and drug treatment in dementia

N. Graham. *(Emeritus) Consultant in Old Age Psychiatry Royal Free Hospital, London, UK*

Up until now no drug has been found which stops the irreversible cell death which occurs in all dementias. However, dementia drugs released so far can help some people with dementia to function better for a limited period. Hopes and expectations by patients and families are high, the pressure on doctors to prescribe is great and the drug industry is under pressure to sell. When to prescribe, for how long, when to stop, consent. These are all crucial issues with ethical implications. Support services delivered in the home or community have been shown to improve quality of life of both patients and their families. Why are these services not marketed, paid for and advocated for as aggressively as the dementia drugs? This and other ethical issues will be discussed.

S41.05

Admission at residential care: dilemmas and ethics

H. Firmino. *Clinica Psiquiatrica Hospitais, Universidade de Coimbra, Portugal*

Admission at nurses' home is a problematic time to the older people. Usually the family take decision to this admission.

At this presentation we go to present actual reality and some discussions concerning ethics issue.

S19. Symposium: addiction and the family

S19.01

The family: a site for prevention and management of alcohol-related problems

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Families are important in preventing and managing alcohol-related problems. First of all some cultures are more successful in preventing alcohol abuse. Drinking is accepted as a natural part of life; is encouraged with moderation among family members; unacceptable drinking behavior and heavy episodic drinking is sanctioned. The scope of secondary prevention in the family is also great since members who are affected by drinking problems often receive no help at all. Finally, in modern approaches for the management of alcohol-related problems (from a systemic perspective to the cultural patterning and ecological perspectives) life circumstances and families have a very important role.

Only a small number of preventive projects have adopted a rigorous evaluative design. Innovative projects now rely on three key principles: the patterns of drinking as predictor of problems; interventions tailored to specific population needs; and partnership in prevention and policy development. Successful examples of projects

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including families exist in North America, Australia, South America (Chile) as well as in Europe (Ireland).

On the treatment side a community and multi-family approach has proven more useful than Al-Anon and marital/family therapy for subjects without family and representing all social classes. Thus an ecological and a total family health perspective seem promising for the development of a cross-cultural approach. The mobilization of neighborhood and community is bound to be more successful than the expertise of professional workers especially in developing countries.

S19.02

Familial risk factors for adolescent substance misuse

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Background: There is a substantial epidemiological literature on factors associated with increased risk of illicit drug use among young people. Past reviews of this evidence have generally been unsystematic. The methodological quality of this evidence, and the validity of any conclusions that can be drawn from it, have often not been explicitly considered.

Methods: A systematic search of electronic databases identified 251 relevant papers of adequate quality. Of these 78 were randomly selected for further analysis.

Results: The most extensive and consistent evidence relates to young people's interaction with their families. Key predictors of drug use are parental discipline, family cohesion and parental monitoring. Some aspects of family structure such as family size and parental age are linked to adolescent drug use. There is extensive evidence on parental substance use, although some studies report no association while others indicate that the association is attenuated by strong family cohesion. Age is strongly associated with prevalence of drug use among young people reflecting a range of factors including reduced parental monitoring. There is limited evidence suggesting that genetic factors account for a significant proportion of the variance in liability to use cannabis.

Conclusion: Much of the current knowledge about risk and protective factors does not permit calculation of benefit even if were it possible to reduce exposure to risk or enhance protective factors. Studies indicating that risk and resilience can be successfully altered include interventions for parental monitoring. These interventions show promise but have rarely been implemented or evaluated in the UK.

S19.03

Expressed emotion and substance-related disorders in outpatient and residential treatment: an exploratory study

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Objectives: To investigate proportions of High Expressed Emotion (EE) in relatives of people with heroin dependence in outpatient and residential treatment. To explore differences of ratings of EE, as compared with those of relatives of schizophrenic patients in standard outpatient care, and between different programs for addictive disorders. To study the predictive value of High EE as regards outcomes in a residential programme for substance related disorders.

Methods: The relatives' EE of patients from Addiction outpatient program (N=47), Addiction residential program (N=24) and CMHT Schizophrenic users (N=30) was evaluated by the Camberwell Family Interview-CFI and compared between groups.

Results: Rates of high Expressed Emotion showed by relatives of heroin dependent patients in residential (92%) and outpatient (51%) treatment are cause of concern. High EE rates of relatives in residential treatment are significantly higher than those of family members of patients affected by schizophrenia in standard outpatient care, however comparable to those of outpatient program. Nevertheless high EE does not seem to predict relapse in a number of outcome variables both at 12 and at 24 months.

Conclusions: according to the importance of family factors in addictive disorders, empirical assessment of related prognostic factors and treatment outcome should be a research priority.

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S19.04

Multifamily treatment for alcoholics

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After the first Club of Alcoholics in Treatment was set up in Trieste in 1979 and the first course of sensibilisation held in Udine (I) new CTAs opened very quickly through Friuli Venezia Giulia and Italy. At the present there are about 2300 CTAs, spread throughout every area, so that every family has at his disposal an "open door" through which it can enter and easily face its own suffering. The work carried out by the Clubs of Alcoholic in Treatment is based on a systemic approach which implies observing and identifying alcohol related consequences inside the biosocial system where people live and work. This is the reason why, right from the beginning, CTAs consider the family as a whole, as the most important biosocial system for each single person. A club cannot work efficiently unless the whole family is involved in the treatment. Difficulties arise because alcoholics and their families must change their behaviour and also their life-style. In other words, we should not help families with alcohol related problems to become part of the community again, but to grow and mature, communicate and interact more productively with the community where they live and work. The systemic approach implies that all family members are "alcoholic", whatever this word might mean. In the first stage many family members defend themselves affirming that, because there are not alcoholics, they should not attend the meetings. Some specific difficulties will be discussed in the paper.

In most of the clubs discussions arise on how to overcome the difficulties brought about by alcoholics without families, living alone, being cut off the community, even though they sometimes have a job and an acceptable way of life. If it is possible, a club may commit itself to helping the individual renew his/her family relations. If a family cannot be contacted or its members are not willing to take part in the treatment, a substitute family has to be found by the club.

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Taking the role of a substitute family is not a superficial task which can be assigned to a member ready only to take an alcoholic to the meetings; a substitute family must be deeply involved in the alcoholic's life and provide constant support whenever required. It has to accept all the obligations, including their sobriety, like any other family attending the club.

SoA2. State-of-the-art lecture

SoA2

New developments in anti-depressive treatment

H-J. Möller. *Munich, Germany*

Although there is no doubt about its efficiency, pharmacotherapy of depression still faces several problems that have to be focused upon and hopefully solved. Besides the problem of drug-resistant depression, over the last decade the view has become increasingly widespread that remission and not only response should be achieved. Follow-up data show very clearly that nonremitters have a much higher risk of relapse/recurrence or even chronicity than remitters. Especially also the problem of under-diagnosis and under-treatment of depression has to be addressed.

As for the near future, there is great hope that new mechanisms of action can overcome the limitations of the traditional and current antidepressive medications. Unfortunately some of the recent developments that raised the most interest either turned out to be less effective than hoped, such as the substance P antagonists, which were ultimately unable to demonstrate efficacy or did not yet lead to a drug that is likely to be marketed in the near future, such as CRF antagonists, for example. Therefore the current perspective is that any drug that will be marketed over the next few years will have principally the same mechanism of action as the available antidepressants. In addition, in can be foreseen that current agents will be improved, for instance by isolating active isomers and using new delivery methods (e.g. fast disolving tablets).

Drug development is evolving fast and is aided by improved brain imaging techniques, better animal models, and an increased knowledge of genetic markers. Hopefully this will result in a change in the pharmacotherapy of depression and psychiatric diseases in general, not on short term, but certainly in the next 50 years.

CS09. Core Symposium: suicidal risk in eating disorders

CS09.01

5HT transporter gene polymorphism and self-injurious behavior in bulimia nervosa

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Aims: Impulsive and compulsive self-injurious behaviors are a common feature in bulimia nervosa. The present study aims at assessing the predictors of the various types of self-injurious behavior in a sample of 95 bulimia nervosa subjects.

Methods: Among the predictors, we included Axis I and II psychiatric comorbidity, childhood sexual abuse, temperamental characteristics, and a polymorphism of the 5HT tranporter gene.

Results: Impulsive self-injurious behaviors were predicted by childhood abuse, a diagnosis of a cluster B personality disorder, and high harm avoidance. Compulsive self-injurious behaviors were predicted by high harm avoidance, and a diagnosis of a cluster C personality disorder. On the contrary, skin picking was predicted by a high harm avoidance and the "short" allele of the 5HT transporter gene.

Conclusion: our findings seem to show that self-injurious behavior are linked to personality, temperamental, and genetic characteristics of bulimia nervosa subjects. On the contrary, Axis I comorbidity does not seem to be associated with self-injurious behavior.

CS09.02

Suicidal behavior in women with anorexia nervosa and bulimia nervosa: report from a longitudinal study

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Background and Method: This presentation will first briefly summarize a review of studies of suicidality in eating disorders and then present data from a longitudinal study.

Results: Multiple studies find that suicide is the cause of death in a substantial proportion of patients with anorexia nervosa who die (estimates range from 11% to 66%). Completed suicide is less common in bulimia nervosa compared to anorexia nervosa, but suicide attempts occur in 25–35% of patients with bulimia nervosa. Clinical correlates of suicidality in eating disorders include purging behaviors, depression, substance abuse, and a history of childhood abuse. Data from a longitudinal study of 246 women with eating disorders indicates that 11 deaths occurred over the course of 9 years of follow-up and four of those deaths occurred by suicide, all in women diagnosed with anorexia nervosa. A total of 38 of 246 subjects (15%) reported at least one suicide attempt over the course of the study. More anorexic than bulimic subjects attempted suicide [30/136 or 22.1% of AN subjects and 12/110 or 10.9% of BN subjects; $\chi^2 = 4.58$, $P = 0.03$]. Multivariate analyses indicated that the unique predictors of suicide attempts for anorexia nervosa included the severity of both depressive symptoms and drug use over the course of the study. For bulimia nervosa, a history of drug use disorder at intake and the use of laxatives during the study significantly predicted suicide attempts.

Conclusions: Women with anorexia nervosa or bulimia nervosa are at considerable risk for suicide.

CS09.03

Clinical and personality features in parasuicidal bulimia nervosa patients

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Objective: We compared clinical variables, psychopathology and personality profiles of parasuicidal bulimia nervosa individuals (BN+P) with non-parasuicidal BN individuals (BN-P).

Method: The sample comprised 241 BN females. All patients were consecutively admitted to our Psychiatry Department and were diagnosed according to DSM-IV (APA, 1994) criteria. Assessment measures included the temperament and character inventory-R (TCI-R), as well as a number of other clinical and psychopathological indices (SCL90-R). Multinomial logistic regression models, adjusted for age, were used to compare all two groups.

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Results: The lifetime prevalence of parasuicidal behavior was 21.4%. High harm avoidance (OR 1.025; 95%CI 1.00–1.05; $P < 0.03$) was associated with lifetime parasuicidal behaviors. High harm avoidance (OR 1.02; 95%CI 1.00–1.04; $P < 0.034$) and low cooperativeness (OR 0.981; 95%CI 0.96–0.99; $P < 0.04$) were associated with lifetime prevalence of suicidal ideation. BN+P patients displayed higher overall psychopathology than BN-P ($P < 0.001$).

Conclusions: After considering age, our results suggested that whereas higher general psychopathology and harm-avoidance are associated with both parasuicidal behaviors and suicidal ideation, low cooperativeness is associated with suicidal ideation.

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S26. Symposium: neurobiology of suicidal behaviour

S26.01

An intermediate phenotype strategy in the search for genetic susceptibility factors in suicidal behavior

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Family and twin studies point towards a partial heritability of suicidal behavior and aggression-related traits. We investigated the role of a set of serotonergic and catecholaminergic candidate genes in these behaviors. Over 1500 suicide attempters with various psychiatric disorders, and healthy control subjects were included. The controls were randomly selected from the general population and had no relevant somatic and no psychiatric disorder. All subjects were administered standard psychiatric interviews including SCID as well as self-report questionnaires for anger-related traits.

We will present new data on a comprehensive set of serotonergic candidate genes. Since both, aggression-related traits and serotonergic activity are partially heritable and correlate inversely, variations in genes of the serotonergic system might then, to some extent, account for variations in aggression-related behavior. Thus, we also investigated the relationship between serotonergic genes and anger, as a subtype of aggression-related behavior.

S26.03

In vivo functional neuro-imaging provides new insights into the suicidal brain

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This review of neuro-imaging findings in attempted suicide patients, depressed non-suicidal patients, and healthy controls will show that, from a neuro-anatomical point of view, there is now increasing insight in the divergent roles of the orbitofrontal and dorsolateral prefrontal cortices in the development of suicidal behaviour through their involvement in the modulation of trait-dependent cognitive and/or emotional characteristics. From a neurobiological point of view, the role of serotonin in particular is elucidated through post-mortem studies and receptor binding studies and through the study of correlations between receptor binding indices and psychopathological characteristics. Taken together with the results of biological, neuropsychological and cognitive psychological challenge studies, new insights in "the suicidal brain" will be presented.

S26.04

High suicide rate: interplay of environmental and genetic risk factors

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A comprehensive method for identifying risk factors for suicide is to consider that they are composed of genetic and environmental influences. Our most recent study has been focusing on risk factors in the general population and in particular in higher risk groups (previous suicide attempts and mental disorder) by including both genetic and environmental risk factors. We have been using the DNA analysis to determine genetic, and psychological autopsy and statistical databases to determine environmental risk factors. Our DNA analyses have examined three single nucleotide polymorphisms (SNP) and microsattelite in TPH 1. We also analysed an insertion/deletion in the promoter region (5-HTTLPR) and intron-2 VNTR in the serotonin transporter gene (5-HTT), one SNP in the receptor 5-HTR2A and another SNP in receptor 5-HT1B, all genes related to the serotonergic neurotransmission. The last investigation was VNTR within gene for MAO-A, referring to serotonin catabolism. All analyses were done on suicide victims, who committed suicide using different violent or non-violent methods, and on their matched controls. The end result of our investigation, which is going to be presented during the symposium, will be a mathematical multifactorial model of risk to develop the suicidal behaviour. This will represent a rather novel approach to study suicidal risk as it will simultaneously cover risk obtained via so different approaches as genetic and sociological can be.

S26.05

Understanding and assessing suicidality as a basis for genetic studies on suicide

M. Sarchiapone, V. Carli, C. Cuomo. *Department of Health Sciences, University of Molise, Campobasso, Italy*

Suicidal behaviour has a complex and multifactorial basis. A genetic component in determining suicidal behaviour has been well established by family, adoption and twin studies. Much more complex appears to be the identification of specific genes involved in suicide. Candidate gene approach studies provided conflicting results and only a few genes involved in the serotonergic transmission have been found associated to suicidal behaviour. In order to perform a further step ahead in the understanding of the genetic basis of suicidal behaviour is important to precisely define the phenotype that is investigated. It is crucial to find an agreement between researchers about what is suicidality and what factors that concur to the occurrence of a suicidal act may be genetically determined. In most studies the lifetime presence of a suicide attempt is used in discriminating between suicidal and non-suicidal patients. However, a suicide attempt is a complex act and doesn't necessarily overlap with suicidality. There may be many suicidal patients with no history of suicide attempt and patients with several suicide attempts and low suicidality. The path that may lead from a life stressor to suicide is extremely complex and there may be different genetic traits that have an influence on different components. A genetic predisposition towards specific personality traits, low resiliency, impulsivity, hopelessness, aggressiveness may all be susceptibility factors for suicide. The hunt for a candidate gene may result always in a failure if we have not clear which phenotype we are investigating.

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S22. Symposium: early detection of psychosis—neuroimaging and neuropsychological findings

S22.01

Assessing the risk for psychosis in the Basel FEPSY study

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Background and aims: The study aims to improve the scientific basis for the early detection of individuals at risk for psychosis. The approach is a prospective, multilevel assessment of individuals at risk and a post-hoc validation of the a priori assumed risk factors after transition to psychosis. In order to assess the risk for psychosis and define inclusion criteria, we developed the "Basel screening instrument for psychosis (BSIP)" and applied it in combination with the brief psychiatric rating scale.

Methods: The "BSIP" covers prodromal signs according to DSM III-R as well as other potential prodromes, previous brief psychotic symptoms, risk factors and indicators of beginning disease: social decline, drug abuse, previous psychiatric history, genetic risk and unspecific symptoms.

The BPRS is used to assess transition to psychosis (according to Yung et al 98).

Results: From 1.3.2000–28.2.2004 we screened 234 individuals referred to our specialised early recognition clinic. Applying the BSIP and the BPRS, 106 were classified as "at risk", another 37 as "not at risk for psychosis", 91 as "already psychotic", of these 46 were included. Of 106 "at risk", 65 were included. A similar pattern of prodromal signs, risk factors and indicators of beginning psychosis emerged comparing the groups "at risk" and "first episode".

Conclusions: The similarity of findings, in at-risk individuals and first episode patients, and a high rate of transitions to psychosis, indicate that the BSIP is a useful tool for the identification of individuals at risk.

S22.02

The neuropsychological assessment of the risk for psychosis in the Basel FEPSY study

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Objective: To investigate the cognitive capacity of individuals at risk for schizophrenia (IR) compared to healthy controls (HC) and to determine a subset of cognitive functions which discriminates best between the two groups.

Methods: N = 60 IR and N = 51 HC were assessed with a neuropsychological test battery.

Five tests were administered to assess attentional (CPT, TAP–Working Memory, TAP–Go/NoGo) and executive functions (WCST, ToH). In a first step all neuropsychological measures were adjusted for potential confounding factors (e.g. education, medication, and use of cannabis). Groups were compared by means of (M)ANOVA. A LOGIT regression procedure with backward stepwise elimination was then carried out in order to detect the subset of measures which best predicts the assignment to the at risk groups.

Results: A MANOVA resulted in a general difference of the neuropsychological performance between IR and HC. Moreover, multiple statistically significant differences were found with post-hoc single measure analyses. HC always performed better than IR. By means of LOGIT regression, a number of variables were identified as the best predictors of the at risk status.

Conclusion: Both executive and attentional functions are impaired in IR. The best prediction of »at risk« status is achieved by assessing specific aspects of attention and executive functions.

S22.03

Spatial working memory is impaired in individuals at high risk for psychosis

P.A. Tabraham, C.M. Brett, L.C. Johns, L.R. Valmaggia, M.R. Broome, J.B. Woolley,. E. Bramon, R. Gafoor, O. Howes, P.K. McGuire. *King's College London, Department of Psychological Medicine, Institute of Psychiatry, London, UK*

Background and Aims: Recent research suggests that individuals at high risk for psychosis perform significantly worse than healthy controls (HC) on tests of spatial working memory (SWM; Wood et al., 2003). Consequently, SWM deficits have been implicated as a marker of risk for psychosis. We compared SWM in subjects with an "at risk mental state" with that in controls and individuals who had recently developed a first episode of psychosis (FEP).

Methods: Thirty-six individuals meeting criteria for an "at risk mental state" (ARMS; Phillips et al., 2000), 23 individuals who had recently developed a FEP and 29 HCs completed the SWM test on the CANTAB. Current IQ was assessed using four subtests of the WAIS-III.

Results: Because FEP group had a lower mean IQ than the ARMS and HC groups, IQ was used as a covariate in the analysis. The ARMS group made more errors on the SWM test than controls and there was a trend for impaired performance in the FEP group. There was no significant difference between the ARMS and FEP groups.

Conclusions: These results confirm that SWM is impaired in those with an ARMS, and indicate that the severity of the deficit is comparable to that in patients with established psychosis. Moreover, this impairment appears to be independent of current IQ, which was relatively preserved in this ARMS sample.

S22.04

Neural correlates of executive function and working memory in the at-risk mental state

M.R. Broome, P. Matthiasson, P. Fusar-Poli, J.B. Woolley, L.C. Johns, P. Tabraham, E. Bramon, L. Valmaggia [1], S. Williams [1], M. Brammer [1], X. Chitnis [1], P.K. McGuire. *Institute of Psychiatry, London, UK*

Background: People who are experiencing 'prodromal' symptoms have a very high risk of developing psychosis. We examined the neurocognitive basis of this vulnerability using fMRI.

Methods: Individuals with an at-risk mental state (ARMS; n = 11) were compared with patients who had recently developed a schizophreniform psychosis (n = 10) and healthy volunteers (n = 15). Subjects were studied using functional MRI while they performed an overt verbal fluency task, random movement generation paradigm and an N-Back verbal working memory task. The demands of the verbal fluency and N-Back paradigms were manipulated experimentally.

Results: During the motor generation task, the ARMS group showed reduced engagement of the left inferior parietal cortex relative to controls, but greater activation than the FEP group. During the N-Back task the ARMS group engaged the prefrontal and parietal

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cortex less than controls but more than the first episode group, with these differences more evident for 2-Back than 1-Back. When the demands of the verbal fluency task were low, the ARMS group showed greater engagement of the left prefrontal cortex relative to the first episode group but did not differ from controls. When the demands were high the first episode group showed greater activation in the anterior cingulate cortex than controls, with activation in the ARMS group intermediate relative to that in the other two groups.

Conclusions: The at-risk mental state is associated with physiological abnormalities of brain function that are qualitatively similar but quantitatively less severe than those seen in patients who have just developed schizophrenia.

S22.05

Grey matter volume reductions in individuals at high-risk and first-episode psychosis—a VBM study

S.J. Borgwardt [1,3], A. Riecher-Rössler [1], J. Aston [1], M. Drewe [1], U. Gschwandtner [1], S. Haller [2], M. Pflüger [1], E. Rechsteiner [1], V. Semenin [1], R.D. Stieglitz [1], E.W. Radü [2], P.K. McGuire [3]. [1]*Psychiatric Outpatient Department* [2]*Neuroradiological Department, University Hospital, Basel, Switzerland* [3]*Insititute of Psychiatry, King´s College, London, UK*

Objective: While it is clear that psychosis is associated with neuroanatomical abnormalities, the extent to which these are related to vulnerability to psychosis, as opposed to a psychosis itself, is less certain. The aim of the present study was to use MRI to examine the nature of volumetric abnormalities in subjects at high-risk of psychosis.

Methods: We compared regional grey matter volume in individuals at high-risk of developing psychosis (HR), patients with first-episode psychosis (FE) and controls (C). Magnetic resonance imaging data were acquired using a 1.5 T scanner. Additionally, we now analyse longitudinal data of the high-risk individuals who were scanned again. MRI data from baseline and follow-up will be compared within each group of people.

The HR and FE subjects were recruited from the Basel early detection of psychosis clinic (FePsy), the volunteers from the local community. Images were processed and analysed using voxel-based morphometry (VBM).

Results: Individuals at high-risk of psychosis show regional grey matter reductions (superior temporal gyrus, cingulate, precuneus, left insula) relative to controls and first-episode psychosis patients. Additionally, the longitudinal data will allow us to compare the structure of the brain before and after the onset of psychosis in the same individual.

Conclusions: The regional grey matter differences may be a correlate of vulnerability to psychosis, while others may be particularly associated with subsequent transition. Progressive structural brain changes might have important implications for treatment of psychotic disorders.

S16. Symposium: free will, autonomy and psychopathology

S16.01

Free will, determinism and psychopathology

T. Thornton. *Centre for Ethnicity and Health, University of Central Lancashire, Lancashire, UK*

Background: The most familiar a priori arguments that causal determinism 'trumps' free will turn on the supervenience of mental phenomena on physiological or more broadly physical properties. Given supervenience, then neither causal determinacy at the physical level, nor causal indeterminacy seem to be compatible with our intuitions about freedom at the mental level. In Sellars' terminology, the space of reasons and the realm of physical law seem to be in tension.

As a discipline which charts both the mental lives of subjects and their physiological properties, psychiatry promises to shed light on this issue. Libet's famous empirical investigation of free will, for example, appears to add specific concrete evidence against the existence of conscious free will.

Methods: Philosophical analysis.

Results and conclusions: I argue, however, that a serious-minded materialist interpretation of Libet's experiment suggests that it does not add anything to the a priori arguments and thus does not undermine standard compatibilist solutions to the a priori problem. By contrast, attention to aspects of psychopathology such as psychological compulsion suggests that the kind of analysis of free action often offered by philosophers is over simple. There is both a principled and a practical problem of deciding what counts as free in real cases.

S16.02

Can brains decide? A phenomenology of free will and decision

T. Fuchs. *Psychiatric Department, University of Heidelberg, Germany*

In the current debate on free will it is often claimed that all human actions are determined by neural mechanisms preceding the decision as well as the final initiation of action. These arguments mostly refer to experiments of B. Libet and others that seem to demonstrate an autonomous decision making process in the brain. In contrast to this, the paper intends to show

(1) that the attribution of decisions to brains renders the concept of decision itself senseless, because it excludes the category of possibility;

(2) that the hypothesis of a belated act of will is based on a questionable dualism of subject and brain, whose refutation is not sufficient to discard the role of subjectivity in decision making.

It will be argued that self-determined action is only possible through subjective processes of deciding that require an intentional, not a naturalistic explanation. On the other hand, it will be shown how the phylogenetic and ontogenetic development of the brain itself allows for increasing degrees of subjective freedom.

S16.03

Freedom and clinical psychopathology

M. Musalek. *Anton Proksch Institute, Vienna, Austria*

We have two uses of the term freedom: on the one hand it refers to (political) liberty and on the other it refers to what we may call action control. The idea of being in control of how we act, the up-to-us-ness of our actions, is an idea we all share. As a normal, mentally healthy adult, how you yourself act is not something that events in nature, or other people, just impose on you, it is more or less up to us how we act. A main focus of clinical psychopathology is diagnostics of mental disorders based on psychopathological phenomena. As the differences between normal psychological and abnormal psychopathological phenomena are not differences in kind but differences in degree, the duration, intensity and context of the psychic phenomena's occurrence become major criteria for severity rating of mental disorders. In this context the most problematic, but

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also most valid measurement is intensity. In the last decades many different approaches to measure intensity of psychopathological phenomena have been proposed, e.g. global intensity self-rating of the patient, ratings of the suffering or the disablement resulting from pathological features, etc. In this contribution the role of changes in freedom and autonomy (in the sense of the possibility to control our actions) in clinical psychopathology should be enlightened by presenting and discussing a new concept for measurement of a mental disorders severity by the loss of degrees of freedom and the reduction of up-to-us-ness in decisions and actions.

S16.04

Action, autonomy and alienation in schizophrenia

G. Stanghellini. *Dynamic Psychology, University of Chieti, Chieti, Italy*

In Greek mythology, the warrior Anphiaraus is dragged reluctantly into a war of which he has the presentiment of a miserable outcome. While he is fleeing with the Argive army, just as the enemy is about to stab him, Anphiaraus is swallowed into the ground split open by a thunderbolt by Jupiter. Before contact with reality can make him perform inauthentic actions, i.e. actions not freely decided by him, the gods gently gather him into their chthonic embrace.

The problem of autonomy, like many other "philosophical" puzzles, is one most persons with schizophrenia are, implicitly or explicitly, confronted with. Is flight the only chance one has to preserve free will? Is the abandonment of the antinomies of existence the only way to safeguard one's identity? Is withdrawing from action the only possibility to defend oneself from heteronomia? Hegel would have answered in the negative, since a person can only make "himself a reality through action". Yet, in every action one's intention is projected outwards in a deed whose consequences express something beyond what was intended. While acting, the self loses itself, and at the same time discovers something about itself. Action is suspended between two different kinds of alienation: If I act, I will realize that my behaviours do not coincide with my intention; If I don't act, I will not become a "reality". In both cases I will feel a kind of alienation. Whereas in the second case the very experience of my own self will vanish and become "unreal"; in the first case, although my life will appear to me alien for the power it exerts over me, none the less I will have the feel that it is "mine" as an experience.

S37.Symposium: how bleak is the long-term outcome of panic disorder?

S37.01

Symptoms, relapses, dalys or qalys? Which outcome measures to use for panic disorder?

H. Katschnig. *Department of Psychiatry, Medical Univeristy of Vienna, Austria*

A substantial proportion of patients diagnosed with panic disorder are thought to have a chronic course, and recent studies emphasise this aspect. However, in view of the changing paradigm in medicine, with increasing emphasis on quality of life (Katschnig et al., Quality of Life in Mental Disorders, John Wiley and Sons, 2006), it is appropriate to reconsider what is meant by "outcome". When half a century ago the then prevailing "therapeutic nihilism" had been overcome by the discovery of the modern psychotropic compounds, the treatment of "symptoms" was the main aim and symptom scales became the outcome measure for acute treatment However, while psychiatric beds started to decline, "relapse and readmission" were common. It was quite logic that the long-term course and relapse prevention became the focus of interest. By the mid 70's several studies had shown that the continuation of drug treatment could prevent relapse in depression and schizophrenia. However, because of side effects, soon voices appeared which asked whether in psychotropic maintenance treatment the "cure was worse than the disease" (Gardos & Cole (1976). *Am. J. Psychiat*, 132,32–6). What ensued was an increasing emphasis on "functioning in daily life and on quality of life" and the development of the new generations of antidepressants and antipsychotics with their more favourable side effect profile. It will be discussed how the "three generations" of outcome measures (a) symptoms (such as panic attacks and agoraphobia), (b) relapses, and finally (c) disabilities and quality of life are conceptually and empirically related to each other.

S37.02

The long-term course of panic disorder compared with other anxiety disorders

S.E. Bruce. *University of Missouri, St. Louis, MO, USA*

Despite the high prevalence and impairment associated with panic disorder, much is yet to be learned about the long-term clinical course of panic in comparison to other anxiety disorders. Previously, information regarding the course of panic is available from retrospective studies, but results are variable. This presentation reports on the 12-year naturalistic course of anxiety disorders from patients recruited into the Harvard/Brown anxiety disorders research project (HARP). HARP is a naturalistic, longitudinal, multicenter study of 711 adults with anxiety disorders. Probabilities of recovery and recurrence were calculated by using standard survival analysis methods. Proportional hazards regression analyses with time varying covariates were conducted to determine risk ratios for possible comorbid psychiatric predictors of recovery and recurrence. Examination of survival analyses of twelve years of follow-up indicate that the course of panic disorder with agoraphobia is chronic, with the majority of participants remaining in episode during the entire course of follow-up (0.52). Additionally, approximately half of those who did recover went on to have at least one recurrence of panic during the follow-up period. Comparatively, patients with generalized anxiety disorder had higher rates of recovery and similar rates of relapse. Additionally, social anxiety disorder was much more chronic than panic disorder, though once an individual recovered from social anxiety disorder, they were less likely to relapse. Overall, these findings suggest that anxiety disorders are pernicious in nature and have a unique clinical course compared with other anxiety disorders. Other predictors of clinical course including psychiatric comorbidity, will be discussed.

S37.03

Predictors of disabilities in the long-term outcome of panic disorder

M. Amering. *Department of Psychiatry, Medical Univeristy of Vienna, Vienna, Austria*

Data from a 4-year and an 11-year prospective study on the outcome of panic disorder will serve to illustrate the claim that independent symptom and quality of life measures should be used in assessing the long-term outcome of panic disorder. If such independent measures are used a differentiated picture of predictors emerge. In the larger

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study with 423 participants three out of five patients still suffered from at least occasional panic attacks four years after intake and two of five were still to some degree agoraphobic—but only 20% of patients were still disabled. In the second study, an 11 year follow-up of 30 panic disorder patients, a similar picture emerged. Disabilities at follow-up were predicted only by disabilities at baseline and neither by panic attacks nor by agoraphobia. Furthermore, specific disabilities, such as work or family disabilities, only predict the same specific disabilities. The relative lack of association between symptoms and disabilities is discussed with respect to consequences for clinical treatment and research.

S37.04

Maintenance treatment and long-term outcome in panic disorder

M. Mavissakalian. *Case Western Reserve Cleveland, OH, USA*

The question of whether specific treatments of panic disorder affect long-term outcome, and if so to what extent, can best be answered in methodologically rigorous long-term maintenance/discontinuation studies that control for or eliminate confounding factors such as ancillary/other treatments and ensure the adequacy of the specific treatment in terms of dose and duration of exposure. This presentation will review the evidence with particular emphasis on the long-term treatment of panic disorder with serotonergic antidepressants that have demonstrated the prophylactic effectiveness of maintenance treatment and the true risk of relapse following treatment discontinuation. The major implication for long-term outcome is that approximately half of patients with panic disorder/agoraphobia remit with a given antidepressant and are maintained in stable remission over two years of continued treatment and beyond. Practical issues of maintenance strategies will be discussed.

S38. Symposium: combinations of antidepressants. How and when we have to use them?

S38.01

Indications and strategies of combining antidepressants use: algorithm proposed by GEAA

E. Rojo. *Hospital Universitario Bellvitge, Barcelona, Spain*

Objective: To review the pharmacological basis of antidepressant potentiation in combination therapy and the clinical evidence for its efficacy

Method: Literature searches were undertaken and the results reviewed

Results: Data sources included surveys, analyses of prescription records, decision algorithms, clinical reports and studies comparing the monotherapy with combination therapy. More recent surveys recommend combining different SSRI, an SSRI plus bupropion or dual action antidepressants plus an SSRI.Decision algorithms recommend an SSRI plus TCA and more recently bupropion plus venlafaxine or mirtazapine. Few controlled clinical trials comparing the combined therapy with monotherapy has been conducted. Beneficial effects have been reported with combinations of TCAs plus mianserine or SSRI plus mirtazapine

Conclusion: Adding or combining antidepressants medications has advantages for the speed of onset and maintaining the existing response. More rigorous clinical trials comparing combination therapy with monotherapy and for the development of rational treatment guidelines are required.

S38.02

Physiopathology mechanisms and results of a Spanish survey

L. Agüera. *Hospital 12 de Octubre, Madrid, Spain*

Objective: The present study uses data from a large survey conducted to examine the general practice of Spanish psychiatrists on the use of antidepressant combinations in the treatment of depressive disorders.

Method: The sample was drawn from specialists and psychiatric residents practicing in Spain who were respondents to a questionnaire distributed during an annual national psychiatry meeting and sent by mail.

Results: A total of 1032 questionnaires were collected; following data-filtering, 831 were analysed. Most psychiatrists (89%) believe that many patients do not respond to the first treatment; in such cases of non-response, 58% choose a combination of antidepressants as the next treatment option. Reasons for using combined treatments include greater efficacy (57%), overcoming resistance to the first antidepressant (27%), faster onset of action (21%) and avoidance of side effects (17%). The most sought after pharmacological profile was serotonergic–noradrenergic (96%) and the most popular combinations were selective serotonin reuptake inhibitor (SSRI) + mirtazapine, SSRI + reboxetine and SSRI + tricyclic antidepressant.

Conclusion: Antidepressant combinations are frequently used in clinical practice. Pharmacological profiles are always considered and SSRIs + mirtazapine is the option usually chosen.

S38.03

Towards better treatment strategies with antidepressants

A. Szegedi. *NV Organon, Oss, The Netherlans*

Clearly, better treatment strategies are needed to improve the outcomes of patients with major depression. One approach receiving increasing attention is to adapt ineffective treatment earlier on the basis of clinical clues—predictors of response—during treatment. Such an approach presupposes it is possible to reliably identify predictors of response as well as knowing how to adapt therapy.

Ideally, reliable predictors of response to antidepressant pharmacotherapy would be available to allow the initial selection of therapy.

Response to treatment would seem a logical predictor of outcome. However until now it was strongly believed that clinicians need to wait at least 4–6 weeks until non-response can be assumed. This requires substantial patience and compliance and may imply the risk of fatal complications like an increased suicide risk.

Partial response or early improvement—reduction of at least 20% in baseline depression scale—is observed in a substantial subset of patients in the first 2 weeks of treatment. If this proved to be a good predictor of response, it could allow earlier identification of when to adapt treatment

Antidepressants that show early onset of action accelerate the time to response or partial response to treatment. This reduces the time that patients have to put up with disabling symptoms, as well as allowing the prediction of outcome of treatment to take place earlier. The graphic shows that identification of early improvement could take place earlier with an early onset of action antidepressant like mirtazapine.

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S40. Symposium: schizophrenia and bipolar disorder

S40.01

Distinguishing disorders by studying relatives

S.M. Lawrie, A.M. McIntosh, B.J. Baig, J. Hall, D. Job, H.C. Whalley, T. William, T. Moorhead, E.C. Johnstone. *Division of Psychiatry, University of Edinburgh, Royal Edinburgh Hospital, Edinburgh, UK*

Introduction: Schizophrenia (SCH) and bipolar disorder (BPD) share some clinical and biological features but not others. Understanding these differences may help clinically differentiate these conditions at an earlier stage and aid the search for new treatments.

Methods: We have examined groups of people with schizophrenia, at high risk of schizophrenia, patients with bipolar disorder and their relatives, and healthy controls with a range of behavioural, neurocognitive, structural and functional MRI, and genetic measures.

Results: Patients with SCH and BPD had similar patterns of executive and memory impairment but only patients with schizophrenia had reduced IQ. Compared with control subjects, all patient and relative groups showed evidence of reduced anterior thalamic gray matter (GM). Reductions in middle prefrontal gyrus and dorsomedial thalamus GM were specific to participants with schizophrenia. Subjects with schizophrenia and bipolar disorder showed reduced white matter density in the anterior limb of the internal capsule which was not found in unaffected relatives. Reductions were found in frontal subgyral white matter density in affected subjects with a family history of schizophrenia only.

Discussion: We suggest that abnormalities of memory, anterior thalamic GM reductions and abnormal anterior internal capsule white matter may provide a structural substrate for increased liability to psychosis in general. Intellectual abnormalities, prefrontal and dorsomedial thalamic GM reductions may be specific to schizophrenia.

S40.02

Brain functional and structural alteration in BD patients and their relatives

M. Haldane. *Section of Neurobiology of Psychosis, Institute of Psychiatry, London, UK*

Aim: Our objective was to delineate the profile of brain structural and functional changes in BD and to examine the contribution of familial risk.

Methods: Structural and functional brain imaging data were obtained from 37 BD1 patients, 49 of their unaffected first degree relatives and 50 healthy participants matched on age, gender and years of education.

Results: Compared to controls, patients showed subtle abnormalities in the dorsal prefrontal cortex (PFC) and the greatest deficit was seen in tasks crucially dependent on the interaction between dorsal and ventral PFC. Ventral but not dorsal PFC abnormalities were seen in unaffected relatives.

Conclusions: Ventral PFC dysfunction seems to be a trait marker for predisposition to BD while additional dorsal PFC abnormalities appear related to the overt manifestation of the disorder.

S40.03

Reward system dysfunction in schizophrenia

A. Heinz. *Berlin, Germany*

Anhedonia—the inability to experience pleasure—is a symptom of several psychiatric disorders such as depression, schizophrenia and drug and alcohol dependence. The concept of anhedonia played a major role in psychiatric and psychoanalytic explanations of psychotic behavior. It was often hypothesized that anhedonia is associated with a dysfunction of the mesolimbic dopaminergic system. However, animal experiments and clinical studies indicate that dysfunction of central dopaminergic neurotransmission interferes with motivation and the incentive salience of reward-indicating stimuli rather than the ability to experience pleasure. Increased dopamine release in the ventral striatum and limbic system may therefore be associated with increased attribution of incentive salience to irrelevant or drug-associated stimuli. We used functional magnetic resonance imaging (fMRI) to assess the *bold* response in the ventral striatum of unmedicated schizophrenics during presentation of reward-indicating and loss-indicating stimuli. Compared with healthy controls, unmedicated schizophrenics showed reduced ventral striatal activation during presentation of reward-indicating cues, which was negatively correlated with the severity of negative symptoms. In unmedicated schizophrenic patients, a high striatal dopamine turnover may interfere with neuronal processing of reward-indicating cues by phasic dopamine release, thus contributing to negative symptoms as such as loss of drive and motivation.

S40.04

Functional imaging of emotion and cognition in schizophrenia

F. Schneider. *Aachen, Germany*

Psychiatric disorders are often characterized by impairments in cognitive and emotional processes. In schizophrenia affective disturbances are amongst the most prominent symptoms.

Functional imaging is an established approach to assess the neural basis of these disturbed emotional processes. To gain further knowledge about the neural correlates of these symptoms different samples of schizophrenia patients have been investigated by fMRI. Studies in juvenile schizophrenics, early-onset patients and other subgroups of schizophrenia patients have shown stable characteristic dysfunctions in the cerebral networks underlying emotional processes, such as emotion recognition and emotional experience. Functional disturbances of regions modulating the interaction between emotion and cognition could be observed during working memory demands. In all these studies the most prominent findings are hypoactivations in subcortical areas, esp. the amygdala and in prefrontal areas.

But fMRI has its potential not only in the characterization of disturbed neural networks in schizophrenia but even in illustrating the corresponding brain-behavior-relation of therapeutic interventions.

Further advances in our knowledge about psychiatric diseases will not only rely on a closer look at the differences between specific syndromes in psychiatric diseases but will also depend on the application of technical advancements at hand.

These new advances comprise enhanced protocols for data acquisition, new imaging paradigms, innovative approaches in the analysis of functional and strutural data as well as adequate methods ensuring the quality of the data. All this will provide new insights in the pathophysiology, the diagnosis and therapy of affective symptoms in schizophrenia.

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S40.05

The impact of genetic variation on brain physiology in schizophrenia

A. Bertolino. *Trani, Italy*

Functional SNPs modify the structure and/or function of the protein so that its activity varies as a function of the allelic variant present in each individual. These variations of the protein might differentially impact on brain physiology, behavior, and pathophysiology thus contributing to susceptibility for schizophrenia and to modulate individual responses to pharmacological treatment with antipsychotics.

Brain imaging provides tools to study the relationship between behavior, pathophysiology, genetics, and treatment. Behavior is sustained by relatively specific brain activity that is measurable with different techniques such as functional magnetic resonance imaging (fMRI). The major contribution of these techniques is that they permit the creation and analysis of statistical maps of brain activity in single subjects as well as in group of individuals. Thus, functional brain imaging allows statistical exploration of the main effect of genes at the brain systems level during specific behaviors. Furthermore, once the physiological effect of genetic variants is known, the effect of the same genetic variants can be measured in brain disorders. As a further level of complexity, longitudinal studies with these techniques can assess the effects of pharmacological treatment. Integration of genetic, neuroimaging and behavioral data can therefore bring to a further and more informative level of complexity the study on the interaction between genetic variants and antipsychotic treatment, potentially contributing more precisely tailored information about individuality of response to treatment. We will discuss recent findings relative to the emerging relationship between genes, brain activity, behavior, and response to treatment with antipsychotics in schizophrenia.

S43. Symposium: off the beaten track: hidden issues in stigma research

S43.01

Strangeness and social distance

A.E. Baumann. *Department of Psychiatry and Psychotherapy, University of Düsseldorf, Düsseldorf, Germany*

One of the main factors contributing to social distance towards persons with mental illness is their perception as “strangers”. Hereby, feelings of higher or lower social distance are not intrinsically directed to the affected individual, but on categories of individuals. Social exclusion is based on the construction of a difference between “us” and “them”. The occurance of perceived strangeness and the exclusion of individuals with mental illness have their roots in evolutionary, sociological, motivational and information processing aspects which are documented in various studies. But perceived strangeness does not necessarily lead to exclusion: In a society with an increased awareness and extensive understanding of mental health and illness, the individual with a mental illness is no longer the misunderstood and excluded “stranger”, but the interpreted and accepted “other” with idiosyncratic characteristics.

S43.02

Self-discrimination and discrimination by others

G. Thornicroft. *Insitute of Psychiatry, King’s College, London, UK*

Many people with mental illness are both stigmatised by others and by themselves. Self-stigma may follow rejection experiences or anticipate them. Avoidance of going back to work, avoidance of applying for a job, avoidance of close relationships. In short: ‘Why try? This can mean restricting social contacts mainly to other people with similar conditions, who may be more tolerant of the diagnosis than the general public. Social withdrawal, for some people with a diagnosis of mental illness, can be seen as a deliberate and active choice, to minimise the unpleasant consequences of contact with others who do not understand. This may be an avoidance of situations which have already been experienced as discriminatory, or avoidance of situations which are expected to be stigmatising. The net effect is the same: marginalisation. This paper will discuss these issues.

S43.03

Mental health professionals: stigmatized, stigmatizing, or both?

B. Schulze. *Psychiatric University Hospital, Zürich, Switzerland*

In the past decade, mental health professionals have initiated a number of national and international efforts against the stigma of mental illness. While achieving a great deal in increasing awareness of mental health issues and beating stigma and discrimination, these programmes have, in part, been criticised to be largely uninformed by the lived realities of people with mental illness and their families. In fact, some critics claimed that anti-stigma efforts led by mental health professionals were in fact a concealed attempt at destigmatising psychiatry itself as a discipline and a profession. This presentation will attempt to throw light on the various ways in which mental health professionals are “entangled” in anti-stigma activities. Evidence will be presented on the ways in which those working in the mental health field themselves experience stigma, and on how they may (unwittingly) contribute to creating and reinforcing mental health-related stereotypes, as well as to dispelling stigma and discrimination. Special emphasis will be given to the role of supporting professionals in maintaining or developing resource-oriented treatment philosophies in preventing a negative outlook regarding the effectiveness of their therapeutic efforts (which is likely to be perceived as stigmatising on the part of patients and families), and thus also in counteracting stereotypes about mental health professionals and their discipline.

S43.04

The contribution of professional diagnostic concepts to stigmatization

H. Katschnig. *Department of Psychiatry, Medical University of Vienna, Austria*

In the mental health field anti-stigma campaigns are often based on the assumption that lay persons do not properly understand psychiatric concepts of mental disorders, and that the public must therefore be educated about the correct meaning of diagnostic terms. Schizophrenia is a particularly well-suited example to demonstrate this, since, in the public’s stereotype, it is connected to the ideas of a “split personality”, of lack of treatability and of more than average dangerousness, which psychiatrists know are all wrong. The recent anti-stigma campaign “Open the doors” of the World Psychiatric Association is a good illustration for this. However, a closer look at today’s diagnostic definitions of schizophrenia and their origins reveals that many of the supposedly wrong ideas of the public have originated within psychiatry itself. Current ICD-10 and DSM-IV definitions of schizophrenia heavily rely on “craziness” symptoms, i.e. hallucinations and delusions, going back to the first rank symptoms of Kurt Schneider, which suggest dangerousness; the idea of chronicity, introduced by Emil Kraepelin as the main dividing criterion between manic depressive illness and dementia precox, is

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prominently present today in professional concepts; and the term schizophrenia itself, created by Eugen Bleuler with the best of intentions, has developed a life of its own in public use, with the metaphoric meaning of inconsistency which is wrongly associated with schizophrenia. The presentation will analyse these professional roots of the public stereotype of schizophrenia.

W12. Workshop: advancing European clinical research in bipolar spectrum

W12

Lessons from multi-site studies on cyclothymia: moving toward Europe

E.G. Hantouche. *Mood Center, Adult Psychiatry Depertment, Pitié-Salpêtrière Hospital, Paris, France*

Recognition of bipolar disorders at an academic, clinical, and national level has increased in recent times. Psychopharmacology and basic research are growing very fast. Therefore there is a tremendous need for a creative and new research in the clinical and epidemiological domains. Some of these clinical works have been established in European centers (Zurich, Paris, Pisa). However, a Europe-wide forum of like-minded experts in epidemiology and clinical domain of bipolar spectrum is still lacking. The proposed workshop will gather European experts who are involved in establishing such European Bipolar Forum. The main objective of this workshop is to present and advance the development and cooperation between experts working in different countries. Some projects were already implemented, such as the creation of new scales for self-rating hypomania and cyclothymia. The work on hypomania scale is currently running in 12 European countries. Methodology and available data on hypomania scale will be presented by Pr. Angst (Zurich). Cumulative data on cyclothymia self-questionnaire were obtained from French national multi-site studies (on soft bipolarity and OCD) and argued that "BP-II ½" represents a distinct form of soft bipolarity (Dr. Hantouche). Moreover, clinicians need to be familiarized with the atypical clinical forms of bipolarity which are in reality more prevalent than typical forms. Such CME protocols will be discussed by Dr. Perugi (Pisa). Finally psycho-education is badly required for helping and treating bipolar patients and their families. Dr. Erfurth (Vienna) will present a user-friendly project to be adapted in different languages.

W11. Workshop: comprehensive overview of bipolar disorders and their treatments in Canada

W11

Comprehensive overview of bipolar disorders and their treatments in Canada

R. Bowen [1], S. Beaulieu [2], M. Baetz [1], X. Li [1]. [1]*University of Saskatchewan* [2]*McGill University, Saskatoon, SK, Canada*

The aim of this symposium is to present new findings regarding bipolar disorders affecting Canadians. Based on a recent national survey on mental health, lifetime prevalences showed significant rates for manic (2.1%) and depressive disorders (12.7%). But affected Canadians use scarcely stabilizing medication and/or services. For past-year manic episodes, only 13.5% had a mood stabilizers and 9.4% either saw a physician.

Religion, spirituality and mood swings will also be analyzed for bipolarity. A moderate relationship of higher religion commitment and lower levels of depression.was found. And, there is a positive association of using spiritual values to help find meaning, strength and understand life's difficulties and bipolar spectrum disorders.

Clinical studies have shown that about 40% of depressed patients who present to psychiatrists suffer from depression, part of the bipolar spectrum. Bipolar disorders patients have shown higher mood variability than control groups. Increased variability is associated with higher distress. There is also an increased interest in "rapid cycling", the term often used to mean mood swings within days or weeks.

The neuroprotective effects of antidepressants and new insights into the neurobiology of depression, as well as the greater evidence of functional impairment associated to bipolar disorders and particularly the impact of the depressive phases on executive functions, force us to reexamine how we conceptualize this disease and its treatments.

This symposium will also be the occasion to summarize the recent edition of the evidence-based Canadian guidelines for the treatment of bipolar disorders.

W09. Workshop: organisational trends of psychiatry and psychotherapy in Moscow

W09

Organizational trends of psychiatry and psychotherapy in Moscow

Y.P. Boyko [1], A.I. Appenianskiy [2], A.Y. Boyko [3], V.N. Prokudin [4]. [1]*Russia Medical Academy of Postgraduate Education* [2]*Department of Prophylactic, Psychotherap and Psychol. Assist. to Persons Suffered from Extraord. Situations, City Psychother, Polyclinic* [3]*Department Of Psychiat Rus. State Med. University* [4]*Department of Psychotherapy in City Clinical General Hospital, Moscow, Russia*

The municipal psychotherapeutical service of Moscow was created in 1991. At that time, psychotherapists worked at 21 psychiatric hospitals and polyclinics. Now they work at 170 mental and general hospitals and polyclinics. All Moscow doctors-psychotherapists have specialisation in psychiatry and psychotherapy. The volume of aid provided by psychotherapists is increasing: 44366 patients in 2003, 47777 patients in 2004, as well as that of medical psychologists: 77160 patients in 2003, 98034 patients in 2004 for population of Moscow' region. During a year, one psychotherapist consults about 450 people at average. The causes, which force patients for psychotherapeutic aid, are non-psychotic disorders of neurotic, somatoform, phobic, affective nature; personality and behavioural disorders; conditions of dependence, PTSD. In Moscow psychotherapy is developed on the basis of biopsychosocial medicine, using both natural scientific and humanistic personal methods. Doctors-psychotherapeutists were working in close collaboration with internists. Psychotherapists and medical psychologists in Moscow have got a significant experience in the aid provided for victims of emergencies, acts of extremism and terrorism (accidents in Moscow, Beslan, Budennovsk, Kaspiisk, etc.). In 2004 the special City Psychotherapeutical Division was created to help

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these patients, which provides these victims with treatment at all the stages. In Moscow mental hospitals was outlined several new trends: increasing quantity of beds for border-line mental patients and decrease for psychotic patients; increasing quantity of beds for geriatric patients (on base partial payment); opening the Departments of Firth Episode of Illness; increasing quantity of Semi-hospital Departments (Day-time Stationers).

W18. Workshop: care and therapy strategies in peripartum mental disorders

W18

Care and therapy strategies in peripartum mental disorders

C. Hornstein [1], C. Klier [2], M. Hofecker-Fallahpour [3], C.L. v. Ballestrem [4]. *[1]Psychiatric Centre Nord-Baden, Wiesloch, Germany [2]Medical University of Vienna, Vienna, Austria [3]University Hospital Basel, Basel, Switzerland [4]German Speaking Marcé-Society, Germany*

Peripartum psychiatric disorders are a major public health concern. These are associated with long-term maternal mental health consequences, with marital problems, psychological problems of partners and with adverse effects on the cognitive, emotional and social development of the child. An early treatment of these disorders is imperative according to preventative aspects of child outcome; however, practitioners, obstetricians and primary health care providers, who interact with mothers in the time before and after birth, often do not recognize psychiatric symptoms. On the other site, the majority of women refuse or are difficult to motivate for a treatment not only due to the maternal psychopathology but also because they are trying to cope with their maternity and with the effort to take care of their new-born. In this symposium different pathways to care and therapy methods will be presented: an awareness program for the detection of postpartum depression, an update on psychopharmacotherapy in pregnancy, an interaction focussed psychotherapy for different postpartum disorders and a co-operative network in perinatal care between psychiatrists and obstetricians.

CS04. Core Symposium: management of most common mental disorders

CS04.01

Preventing depression recurrence in primary care

J. Ormel [1], H.J. Conradi [1], A.S. Smit [2], J.A. Jenner [3], T.W.D.P. van Os [1], B. Tiemens [1], P.M.G. Emmelkamp [1], H. Kluiter [2]. *[1]University Medical Center, Groningen [2]Gelderse Roos Institute for Professionalisation Research [3]University of Amsterdam, The Netherlands*

Primary care is the defacto treatment setting for (major) depression. Despite well frequented post-academic training programs and an enormous increase in antidepressant medication prescription, the prevalence of major depressive episodes (MDE) in the general population has, surprisingly, not fallen. This development stresses the need to reduce relapse and recurrence again. We evaluated the long-term effectiveness of an enhancement of the general practitioner's (GP) care-as-usual (CAU) with the Depression Recurrence Prevention program (DRP) which was delivered in three modalities: preceded by a 10-session cognitive behavioural therapy (DRP + CBT) or psychiatric consultation (DRP + PC), and (3) without these (DRP-only). The study design consisted of a randomized controlled trial in primary care comparing CAU vs. DRP-only vs. DRP+, conducted from 1999 till 2004. The main inclusion criterion was a recurrent depression. Seventy-two patients were randomized to CAU, 112 to DRP-only, and 83 to DRP+. The psycho-educational DRP program started with three face-to-face sessions, followed by 12 telephone-based monitoring and booster contacts with a prevention worker over a period of 36 months. Patients were assessed quarterly during 3 years. The primary outcome measures were depression-free time and relapse and recurrence rate during follow-up. The intention-to-treat 1-year outcome analyses did not find statistically significant or consistent differences between the intervention groups and CAU (Smit et al., Psychological Medicine, 2005). The 3-year outcomes will be presented at the AEP conference. For all patients mean proportion MDE-free time was 0.72, and 67% experienced one or more recurrences during the 3-year follow-up.

CS04.02

Depression in primary care: undertreatment or overtreatment

D. Berardi, M. Menchetti. *Institue of Psychiatry, Bologna University, Bologna, Italy*

Background and aims: The management of depression in primary care is considered unsatisfactory due to low recognition rates of depression and insufficient pharmacological treatment with antidepressant drugs. On the opposite, some studies found that among patients labeled as depressed by Primary Care Physicians (PCPs), a relevant proportion do not satisfy DSM or ICD-10 diagnostic criteria for depression. Aims of this study are: 1) to assess disparity between PCP diagnosis and research diagnosis of depression; 2) to compare antidepressant treatment in concordant and discordant cases of depression.

Methods: Data are gathered from a national survey on depressive disorders in primary care, conducted with the collaboration of 191 PCPs. Out of 1896 PCP attenders, 361 were evaluated for depressive disorders both by the "unaided" PCPs and by using research interview for depression (WHO ICD-10 Symptom Checklist for Depression).

Results: PCPs recognized 79.4% of cases of depression and prescribed antidepressants to 40.9% of them. Yet, 45.0% of patients labeled as depressed by the PCPs were not cases of depression according to ICD-10 criteria. Globally, 35% of antidepressants for "depression" were prescribed to false positives.

Conclusions: Our findings indicate that underrrecognition and undertreatment of depression is decreasing while overrecognition and overtreatment are common and perhaps increasing, becoming a relatively more important cause of inadequate patient management in primary care. It is necessary for PCP educational interventions and initiatives to focus on an appropriate distinction between full-fledged and minor forms of depression, with the aim of a more selective prescription of antidepressants.

CS04.03

Treatment of medically unexplained symptoms in general practice

M. Rosendal [1], P. Fink [2], T. Toft [2], L. Frostholm [2], F. Olesen [1]. *[1]Research Unit for General Practice [2]Research Clinic for Functional Disorders, Aarhus, Denmark*

Background and aims: In primary care many patients present medically unexplained physical symptoms. A biomedical approach

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to diagnosis and treatment is of limited value and may even be harmful. There is a need for new approaches to these patients in medical care. In Denmark we have developed a treatment model on the basis of current scientific evidence and based on The Reattribution Model from the UK. This model, named The Extended Reattribution and Management Model, deals with assessment and treatment of mild as well as severe cases of functional disorders. It is taught to general practitioners during a training program using micro skills training and group video supervision during a 27 hours programme. Our objective was to evaluate the effect of the treatment model in general practice.

Methods and results: Evaluation was conducted in two randomised controlled trials in Danish general practices. GPs' attitudes towards somatisation improved and they became more aware of medically unexplained symptoms compared to untrained GPs. We found some effect on patient satisfaction with care, but the effects on patient health were small or insignificant.

Conclusion: Trials on treatment models using reattribution have shown significant effects at GP level. Effects at patient level are uncertain and different studies show conflicting results. There is a need for further insight and research into ways of improving treatment of medically unexplained symptoms in primary health care with special attention to the effects at patient level.

CS04.04

Evaluation of models working at the interface between primary care and mental health services

N.E. Laufer [1,2], P. Jecsmien [2,3], B. Maoz [4], N. Zilber [5], D. Grupper [2,6], S. Gur [2,7], A. Weizman [2,7,8], H. Munitz [2,9]. *[1]Tel-Aviv Mental Health Clinics, Ministry Of Health [2]Sackler Faculty of Medicine,Tel-Aviv University, Tel-Aviv [3]Davidson Mental Health Clinic, Raanana [4]Ben Gurion Medical School, Beer-Sheva [5]Falk Institute, Kfar Shaul Hospital, Jerusalem [6]Beer-Yaakov Mental Health Centre, Beer-Yaakov [7]Geha Mental Health Centre [8]Felsenstein Medical Research Centre,Rabin Medical Centre, Petach-Tikva [9]Clalit Health Services, Tel-Aviv, Israel*

Background and aims: Psychiatric morbidity is common in primary care and is mainly treated without specialist referral.The aim of the study was to compare two models of mental health service, shifted outpatient or consultation liaison in six primary care clinics measuring baseline prevalence of mental disorder and the effect on detection and treatment by primary care physicians (PCP) and compare demographic, diagnostic and outcome data of referrals, and costing of the services.

Methods: Comparison between models included (a) Diagnostic evaluation using the Composite International Diagnostic Interview (CIDI) (b) outcome measures including symptoms, use of medical services (c) process measures including treatment modalities used, views of staff involved in the services and patient satisfaction (d) PCPs' ability to detect and manage mental illness using two stage stratified sampling with the General Health Questionaire–12 and CIDI.(e) Direct costs per patient referred.

Results: High rate of current mental disorder was found with 40.1% overall detection rate with a lower specific detection rate of depressive, somatoform and anxiety disorders with moderate treatment levels in diagnosed cases. Referrals to the models differed in diagnostic mix and from local mental health service referrals with similar outcomes in global symptomatology. Referrals to both models showed reductions in emergency room and specialist visits. Preliminary data indicate a lack of effect on PCP detection but an increase in PCP psychosocial interventions for the SOP model. Cost per referral was less for the PCCL model but implementation was more difficult.Conclusions-Further innovative mental health service models are recommended in this setting.

S18. Symposium: various aspects of serotoninergic function

S18.01

Serotonergic candidate genes in suicidal behaviour and aggression-related traits

D. Rujescu [1], A.M. Hartmann [1], I. Dietrich [1], A. Thalmeier [1], B. Schneider [2], K. Maurer [2], A.M. Hartmann [1], H.J. Möller [1], I. Giegling [1]. *[1]Molecular and Clinical Neurobiology, Department of Psychiatry, Ludwig-Maximilians-University, Munich [2]Department of Psychiatry, Johann Wolfgang Goethe-University, Frankfurt, Germany*

Risk of suicide-related behavior is supposed to be determined by a complex interplay of sociocultural factors, traumatic life experiences, psychiatric history, personality traits, and genetic vulnerability. This view is supported by adoption and family studies indicating that suicidal acts have a genetic contribution that is independent of the heritability of Axis I and II psychopathology. The heritability for serious suicide attempts was estimated to be 55%. Neurobiological studies have shown that serotonergic dysfunction is implicated in suicidal behaviors. These findings stimulated the investigation of variations in serotonergic genes in this context. We have initiated a large scale case control genetic association study which comprises of 250 suicide attempters and 1500 healthy volunteers and investigated the role of a comprehensive set of serotonergic candidate genes in this behavior. We will present new data on a comprehensive set of serotonergic candidate genes. Since both, aggression related traits and serotonergic activity are partially heritable and correlate inversely, variations in genes of the serotonergic system might then, to some extent, account for variations in aggression-related behavior. Thus, we also investigated the relationship between serotonergic genes and anger, as a subtype of aggression-related behavior.

S18.02

Taking the integrative serotoninergic perspective: neurophysiological effects in human challenge studies

C. Norra. *Max-Planck-Institute for Experimental Medicine, Division Clinical Neurosciences, Göttingen, Germany*

Background and aims: An established human challenge tool for the assessment of central nervous serotonin functioning is represented by the tryptophan depletion test (TDT). Based on animal studies, the TDT suggests an inverse influence on the serotonergic neurotransmission as represented by auditory evoked potentials to stimulus intensity or startle response, but similar effects in humans remain mostly unconfirmed. On the other hand, neuro-psychiatric disorder with assumed serotonergic dysfunction, e.g. mood disorder, schizophrenia, personality disorder or substance abuse have shown to be correlated to these non-invasive electrophysiological measures.

Methods/Results: Studies with female volunteers showed an augmentation of stimulus intensity responses with significant individual change rates which was partly more pronounced in the TDT depletion condition, but there was only a slight increase of the overall resulting loudness dependence of auditory evoked potentials (LD). When regarding auditory sensory gating and processing, TDT led to significant reduction of mean startle amplitudes and a tendency

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towards suppression of the prepulse inhibition in the depletion condition.

Conclusion: Despite strong depletion the findings provide only some minor arguments for the hypothesis of serotonergic modulation on auditory evoked measures, i.e. LD or startle. As opposed to other selective challenges with e.g. SSRI, interactions of TDT with other transmitter systems may have to be taken into account. Thus, previous animal studies or clinical observations will have to be re-evaluated in respect to the complex neuroanatomy and pharmacology of 5-HT receptors and in contrast to a more general manipulation of the human serotonergic system by TDT.

S18.03

Central monoaminergic function as assessed by neurophysiological and functional neuroimaging techniques: combined studies in healthy controls and psychiatric patients

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Background: Brain monoaminergic systems have an important modulating and stabilizing impact on numerous brain functions. Impairments of monoaminergic neurotransmission have been suggested as pathophysiologically and pathogenetically relevant factors in neuropsychiatric disorders. Therefore the assessment of these systems in vivo might be of particular scientific and clinical interest.

Methods: Nuclear medicine (SPECT and iodine-123 radiolabelled β-CIT or ADAM) and neurophysiological ("loudness dependence of auditory evoked potentials" – LD) techniques serve as valid tools to investigate indicators of monoaminergic anatomy (serotonin: ADAM-, serotonin and dopamine: β-CIT-SPECT) and function (LD).

Results: SPECT and neurophysiological studies in healthy controls and psychiatric patients revealed that both measures are correlated, provide evidence of distinct neurochemical dysfunctions in different neuropsychiatric disorders, and suggest that monoaminergic variables can be used as predictive tools for the patients' responses to pharmacotherapy.

Conclusions: The combination of independent monoaminergic measures might help to comprehensively assess brain neurochemical function in vivo, to obtain multiple insights into the pathophysiology of neurotransmitter systems, and thus to provide clinically relevant information on the neurobiological background of psychiatric disorders.

S18.04

Serotonin function in panic disorder: from challenge studies to brain imaging and genetic

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The essential role of serotonin (5-HT) system in the neurobiology and pharmacotherapy of panic disorder (PD) continues to be a topic of intensive interdisciplinary research. Interest in the involvement of 5-HT in PD has been fuelled by clinical studies demonstrating that medications increasing the synaptic availability of 5-HT, such as selective 5-HT re-uptake inhibitors, are effective in the treatment of PD. Rival theories of 5-HT deficiency versus excess have attempted to explain the impact of 5-HT function in PD. In the past decade, knowledge of the role of 5-HT in the neurobiology of PD has expanded dramatically due to much new research including experimental, treatment, brain imaging and genetic studies. The current review attempts to summarize the new data and their implications. The challenge and treatment studies generally confirm the specific inhibitory influence of 5-HT on panicogenesis. The brain imaging studies in PD patients demonstrate functional and clinically relevant alterations in various elements of 5-HT system affecting the neurocircuitry of panic. The findings of genetic association studies suggest that certain 5-HT-related genes may contribute to the susceptibility to PD; however, these data are rather limited and inconsistent. It appears that even if not the primary etiological factor in PD, the 5-HT function conveys important vulnerability as well as adaptive factors. A better understanding of these processes may be critical in achieving progress in the treatment of patients suffering from PD.

S13. Symposium: the European Prediction of Psychosis Study (EPOS)—current results

S13.01

Overview on the baseline results of the European Prediction of Psychosis Study (EPOS)

J. Klosterkoetter [1], R.K.R. Salokangas [2], M. Birchwood [3], D. Linszen [4], S. Ruhrmann [1], G. Juckel [5], A.P. Morrison [6], S. Lewis [7], H. Graf v. Reventlow [1], and the EPOS Group [8]. *[1]Department of Psychiatry and Psychotherapy, University of CologneGermany [2]Department of Psychiatry, University of TurkuFinland [3]Early Intervention Service, Birmingham, UK [4]Academic Medical Centre, Amsterdam, The Netherlands [5]Department of Psychiatry and Psychotherapy, Charite, Berlin, Germany [6]Psychology Services, Bolton Salford And Trafford Mental Health Trust, [7]School of Psychiatry and Behavioural Sciences, University of Manchester, Manchester, UK*

Background: Early detection and indicated early intervention in the initial prodromal phase should considerably improve the course of psychoses. Yet, the benefits of such programs still require an evidence-based evaluation on the basis of a sufficient sample-size.

Objective: This report presents an overview on the recruitment, the sample characteristics and major results of the baseline examination of EPOS, an European 4-country naturalistic field-study of the initial Prodrome.

Materials and methods: Across six centres (Germany: Cologne, Berlin; Finland: Turku; The Netherlands: Amsterdam; United Kingdom: Birmingham, Manchester), 16–35-year old persons attending specialized services or general psychiatric services were examined. Inclusion criteria were the presence of APS, BLIPS, at least two of nine Basic Symptoms (BS), and Familial risk or Schizotypal Personality Disorder plus reduced functioning (FR + RF). In addition, psychopathological, neurocognitive, neurobiological, psychosocial, and service and treatment-related assessments were carried out.

Results: More than 250 putatively prodromal persons were identified, included into the study and underwent the baseline examination. A high percentage presented themselves with BS and/or APS, a smaller percentage with BLIPS or FR + RF. The level of psychopathology, distress and functional decline found among this patient group underlines the need for indicated early recognition and intervention.

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Conclusions: EPOS will provide for the first time a sound data base allowing an evaluation of the applicability and cost-benefit ratio of early detection and intervention programs in Europe.

S13.02

Neurobiological findings in subjects clinically at risk for psychosis

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Background and aims: Neurobiological investigations during the prodromal phase of psychosis provide an excellent access to the pathogenesis of the disease and may also contribute to the early recognition of persons at risk to develop the disease.

Methods: Subjects at risk (SR), schizophrenia patients (SP) and healthy controls (HC) were investigated by MRI and by event related potentials. On the structural level, the gyrification index (GI) was analysed, on the neurophysiological level the N100.

Results: Compared to HC frontal GI was elevated significantly in SR to a degree comparable to SP. Moreover, due to logistic regression this parameter seems to allow a high rate of correct classification. N100 findings in SR were positioned between HC and SP.

Conclusions: GI findings supports the notion that neurodevelopmental disturbances are involved into the pathogenesis of psychosis and are promising regarding a contribution of this parameter to a multilevel model of psychosis prediction. N100 findings are in line with a phase model of development of frank psychosis.

S13.03

Quality of life in psychiatric patients vulnerable to psychosis. Results of the EPOS study

R.K.R. Salokangas [1], M. Heinimaa [1], J. Huttunen [1], J. Klosterkötter [2], S. Ruhrmann [2], H. Graf von Reventlow [2], D. Linszen [3], P. Dingemans [3], M. Birchwood [4], P. Patterson [4]. *[1]Department of Psychiatry, University of Turku, Finland [2]Department of Psychiatry and Psychotherapy, University of Cologne, Germany [3]Acadmic Medical Centre, University of Amsterdam, The Netherlands [4]Early Intervention Service, University of Birmingham, UK*

Objectives: The main aim of the European Prediction of Psychosis Study (EPOS) is to study a large sample of young patients who are at risk of psychosis and to estimate their conversion rate to psychosis during 18 months follow-up. The present presentation aims to describe quality of life (QOL) of the patients at risk of psychosis.

Methods: In six European centres, 16–35 year old psychiatric patients at risk of psychosis were examined. Risk of psychosis was defined by occurrence of basic symptoms, attenuated psychotic symptoms, brief, limited or intermittent psychotic symptoms or familial risk plus reduced functioning (= prodromal symptoms) during the past three months. Quality of life was measures by the modular system for quality of life (MSQL). Psychiatric and primary care patients with and without psychotic symptoms and healthy subjects acted as comparison groups.

Results: The patients at risk of psychosis reported lower MSQL sum scores and their functioning was lower than those of the patients without prodromal symptoms. Major differences were found in mental state and emotions. In the comparison sample, patients reporting psychotic symptoms also revealed lower quality of life than those without psychotic symptoms. Especially, difficulties in interpersonal relationships seemed to be related to vulnerability to psychosis.

Conclusions: Those of the psychiatric outpatients who are at risk of psychosis have lower quality of life than other psychiatric patients or healthy controls. Difficulties in interpersonal relationships seem to differentiate more specifically patient vulnerable to psychosis from other patients.

S13.04

Childhood trauma—the impact on individuals at ultra-high risk of psychosis

P.J. Patterson [1,2], M.J. Birchwood [1,2], A.L. Skeate [1,2]. *[1]The Early Intervention Service [2]The University of BirminghamUK*

Objective: To evaluate the impact of childhood trauma as a risk factor for the development of co-morbid symptoms in individuals at ultra-high risk of developing psychosis.

Background: Evidence is accruing that levels of trauma and abuse are high in clinical populations (Janssen et al., 2004; Bebbington et al., 2004) but the impact of different types of childhood trauma on co-morbid and prodromal psychotic symptoms remains unclear. The EPOS sample of individuals at ultra-high risk of developing psychosis are examined for associations with co-morbid and psychotic symptoms.

Method: The EPOS sample of individuals at ultra-high risk of developing psychosis are examined for associations with co-morbid and psychotic symptoms. Comparisons with other clinical cohorts are made and results explored.

Results: Differences were explored between levels of emotional abuse, emotional neglect, physical abuse, physical neglect and sexual abuse, with significant correlations between co-morbid symptoms and childhood trauma. Comparisons with clinical and non-clinical samples are presented and suggestions for further research are made.

Conclusion: A consideration of the role of early trauma on the development of co-morbid symptoms for individuals experiencing prodromal symptoms of psychosis may have implications for assessment and intervention approaches for clinical and research programmes.

W04. Workshop: suicide in prisons and secure psychiatric hospitals

W04.01

Suicides in male prisoners in England and Wales 1978–2003—rates and trends

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The number of suicudes in English and Welsh prisons is increasing, but the excess compared with the general population has not been reliably quantified. We therefore compared, in narrow age bands, all 1312 suicides in male prisoners in England and Wales with suicide rates in the general male population. The overall standardised mortality ratio (SMR) was 5.1 (95% CI, 4.8–5.3) suggesting a fivefold excess of

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suicide in male prisoners, with a particularly striking excess in boys aged 15–17 (SMR 18, 13–26). The proportional excess of suicides in male prisoners has been increasing during the past quarter of a century, which underscores the need for substantial improvements in suicide prevention in prisons.

W04.03

Suicide in secure psychiatric facilities

H. Gordon. *Littlemore Mental Health Centre, Oxford, UK*

The rates of suicide in prisons exceeds that in the general population and there is concern that these rates are rising. Although some prisoners who commit suicide are mentally ill, a proportion suffer from adjustment reactions. There are few studies of suicides in secure psychiatric facilities but rates are felt to be relatively low. This seminar will outline an overview of the clinical and academic knowledge base on suicide in prisons and secure psychiatric facilities in Europe.

W10. Workshop: children of psychologically disturbed parents

W10

Children of psychologically disturbed parents

A.L. Sutter-Dallay [1], N. Guedeney [2], E. Glatigny-Dallay [1], A. Bifulco [3], B. Figueiredo [4]. *[1]Réseau de Psychiatrie Périnatale, CH Charles Perrens, Bordeaux [2]Service de Psychiatrie de L'Enfant et de L'Adolescent, Institut Mutualiste, France [3]Royal Holloway, University of London, London, UK [4]University of Minho, Braga, Portugal*

Attachment between an infant and its parents is instinctive and vital for the psychoaffective development of the child. However, it can be impeded by problems with the mother's mental state. The process is thus fragile, and parents need the necessary adaptive capacity for normal attachment in the child to develop. Good mental health is required for the parent to provide a positive welcome for the child and to establish the interactions that will enable the baby to develop internal psychological security. When psychopathology appears, particularly in the mother, during the critical perinatal period, the relationship between the parent and the baby may become unstable, and attachment processes disturbed.

During this session, studies examining the impact of maternal disorder and vulnerability on the baby will be reported on and discussed, especifically:

- the impact of prenatal mothers insecure attachment style on interactions with the infant,
- the impact of maternal postpartum manic episodes in the mother on mother-child interactions,
- the impact of PND on the child's psychoaffective development at 2 years,
- the impact of depression in mothers on the emotional involvement with the infant,
- the review of different treatment approachs of attachment disorders in 0–3 children possibly useful to interventions with PND mothers.

W21. Young Psychiatrists Workshop: European and International Networks of Young Psychiatrists and Trainees

W21

European and International Networks of Young Psychiatrists and Trainees

C. Hanon. *Antony, France*

The aim of this workshop is to learn from the history and work of networks of young psychiatrists and trainees throughout the globe. Associations of young psychiatrists and trainees have been established in several countries in response to the recognition by young psychiatrists of the necessity and importance of interaction among young colleagues facing similar difficulties and problems regardless of their working conditions. Lively discussion between young fellows working within the same nation or region in these associations provides young psychiatrists with opportunities to share ideas, interests and experiences; and to promote the standard of psychiatric training and medical practice. This workshop will present the most important organizations of young psychiatrists: European Federation of Psychiatric Trainees (EFPT), World Association of Young Psychiatrists and Trainees (WAYPT), and the World Psychiatric Association Young Psychiatrists Council (WPA-YPC). It will focus on key issues in the implementation of national, European and international organizations, objectives and aims, activities, confronting difficulties and problems and future plans from an international perspective. This workshop is aimed at sharing international experience, and thereby contributing to building and strengthening associations of young psychiatrists worldwide and encourage collaboration among these associations.

W22. Workshop: towards an EU mental health strategy

W22.01

The European Commission Green Paper on mental health

J. Scheftlein. *European Commission, Luxembourg, Luxembourg*

On 14 October 2005, the European Commission adopted a Green paper "Improving the mental health of the population: Towards a strategy on mental health for he EU" (COM(2005)484 final of 14 October 2005).

The Green paper launched a consultation, lasting until end of May 2006, about the relevance of mental health for the EU, the need for a strategy at EU-level and its possible priorities. The paper presents mental health as a resource for some of the European Union's strategic policy objectives (economic, social and quality of life of citizens). It argues that the development of a mental health strategy at Community level could add value by creating a framework for the cooperation between Member States, increasing the coherence of actions in different policy sectors and involving stakeholder organisations into building solutions. The paper proposes to focus a strategy on the following aspects: promoting mental health in the whole population, addressing mental ill health through preventive action, improve the quality of life of people with mental ill health or disability, setting up a mental health information, research and knowledge system for the EU. All interested parties are invited to contribute to the consultation, but there are also structured meetings.

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The Commission will conclude the consultation in summer 2006 and will then decide about the appropriateness of developing a proposal for a strategy on mental health for the European Union.

W22.02

Mental health promotion and mental disorder prevention in Europe

E. Jane Llopis. *Mental Health Programme, World Health Organization, Regional Office for Europe, Copenhagen, Denmark*

The EC Green Paper on mental health stresses the importance of mental health promotion and mental disorder prevention as integral components of a comprehensive approach to public mental health.

Although there has been large controversy and sceptical beliefs around the efficacy of mental health promotion and mental disorder prevention, a strong compilation of evidence shows that: a) prevention and promotion reduce risk factors and increase protective factors; b) can show prevention of mental disorders, e.g., the reduction of onset of depression in adolescents; and c) implementation of prevention and promotion can bring about health, social and economic benefits for society.

As a concerted response to the lack of action on prevention and promotion in mental health to date, European countries committed themselves "to promote the mental well being of the population" and "to reduce the preventable causes of mental health problems, co-morbidity and suicide" at the Helsinki WHO European Ministerial Conference on Mental Health in January 2005.

The European Commission Green Paper mental health supports and builds upon the WHO Declaration and Action Plan, developing further and proposing options to build solutions and implement mental health promotion and mental disorder prevention across EU Member States. The consultation process on the Green Paper and the discussions with Member States is identifying priorities for action and supports the development of comprehensive mental health strategies at the country and community levels, in an effort to translate political commitment into action and engage all stakeholders in the process.

W22.03

Stigma and quality of life in mental disorders: a European perspective

H. Katschnig. *Department of Psychiatry, Medical University of Vienna, Austria*

Misconceptions of mental disorders and irrational fears are responsible for the open or hidden exclusion of persons with mental ill health or disabilities from participation in society, particularly from finding adequate housing and work. Thus, persons with mental ill health have to cope not only with the symptoms interfering in their daily life, but also with stigma and discrimination. In addition, the fear of being labeled is often responsible for delaying or avoiding help seeking. Stigma and discrimination have become an important reason for the impoverished quality of life (Qol) of many persons with ill mental health (Katschnig et al., Quality of Life in Mental Disorders, John Wiley, Chichester, 2006). Section 6.2 of the Green Paper deals with these issues. In order to further social inclusion, it underlines the need to move away from large psychiatric institutions, which contribute to stigma, towards the establishment of services in primary care, community centers and general hospitals, emphasizing patient and family needs, active participation and empowerment. The attention to human rights issues in conjunction with compulsory admission to psychiatric institutions and with compulsory treatment is an integral part of this antistigma and antidiscrimination strategy. A number of EU funded projects have dealt with the above issues. The Green Paper suggests to identify through the consultation process best practices for promoting the social inclusion and protecting the rights of people with mental ill health and disability, and to include these issues in the EU Fundamental Rights Agency which will become operational in 2007.

W22.04

Mental health information in a European context

K. Wahlbeck. *Mental Health Group, STAKES National Research and Development Centre for Welfare and Health, Helsinki, Finland*

The EC Green Paper on mental health underlines that mental health is poorly covered by existing health monitoring systems. In a concerted response to the information challenge, European countries committed themselves "to develop surveillance of positive mental well-being and mental health problems, including risk factors and help-seeking behaviour" at the Helsinki WHO European Ministerial Conference on Mental Health in January 2005. The Helsinki Action Plan outlines the following tasks:

- Internationally standardized, comparable indicators and data collection systems
- Periodic population-based mental health surveys
- Measurement of base rates of incidence and prevalence of key conditions, including risk factors
- Development of an integrated set of databases on mental health policies, strategies, implementation and delivery of evidence-based promotion and prevention
- Dissemination of information on the impact of good policy and practice nationally and internationally.

The European Commission faces the challenge of developing a mental health information and knowledge system, for surveillance of population mental health and for exchange of best practices in the field of mental health. The work can build on several successful mental health information projects, co-funded by the European Commission.

The consultation explores the need for more sustainable infrastructures for the mental health information and knowledge system are needed. Proposals could e.g. include the creation of a European Observatory on Mental Health and a European Clearinghouse for Best Practice in Mental Health.

S04. Symposium: improving treatment process in psychiatry

S04.01

Quatro study—RCT of adherence therapy

T. Becker [1], J. Bindman [2], G. Thornicroft [2]. [1] *Guenzberg, Germany* [2] *London, UK*

Background and aims: Compliance to antipsychotic medication is of utmost importance for people with schizophrenia in order to profit from treatment, prevent relapse, and maintain decent quality of life. However, rates of non-compliance are high (approx. 50%), and success of interventions to increase compliance has been limited so far.

Methods: Since January 2002, a comprehensive longitudinal multicenter European study (participant centres are in London, Verona, Amsterdam, and Leipzig) analyses effectiveness and cost-effectiveness of "adherence therapy", a pragmatic intervention aimed at increasing compliance to medication based on motivational interviewing. At each site, subjects were randomly assigned to either eight sessions of "adherence therapy" or health education and were

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followed up for one year. Data collection has been completed (baseline: $N = 409$; one-year follow-up: $N = 372$).

Results: No effects for adherence therapy were found for improving adherence, clinical outcome, or quality of life.

Conclusions: This intervention cannot be recommended for general use in this patient group. These findings challenge the conclusions of previous reviews which have found positive effects of interventions based on motivational interviewing. The real challenge is the recruitment and retention of non-compliant patients. On the basis of these results, directions for further research on effective interventions to improve compliance with antipsychotic medication will be outlined.

S04.02

The vehicle of success: theoretical and empirical perspectives on the therapeutic alliance in psychotherapy and psychiatry

J. Catty. *London, UK*

The importance of the 'therapeutic alliance' has long been recognised in psychotherapeutic theory and research, but is also increasingly researched in psychiatry. This paper examines the clinical and empirical literature on the alliance and asks, firstly, whether the concept is unrecognisably distorted when used in psychiatry; and, secondly, how we are to understand the apparent anomaly whereby its proponents have defined it as a 'vehicle' for treatment rather than curative, while quantitative research increasingly associates it with outcome. It reviews the evolution of the concept in clinical theory, traces the development of empirical research on the subject and considers its use in psychiatry. It argues that the empirical research misleadingly suggests a curative paradigm, and that it may be unable to illuminate some of the clinical controversies, although its implications for theory demand consideration. It argues for the retention of the alliance concept in psychiatry distinct from the broader spectrum of the 'relationship'. Finally, it argues that the debate about its curative properties may, paradoxically, be more pressing within psychotherapy than psychiatry, and endorses calls for more theoretically driven empirical research into the alliance.

S04.03

Use of SMS in the treatment of schizophrenia

S. Bachmann, N. Scholz, H. Kordy, S. Bauer, C. Mundt, M. Weisbrod. *University of Heidelberg, Centre for Psychosocial Medicine, Heidelberg, Germany*

Background and aims: In schizophrenia compliance with treatment is a strong predictor of outcome and can be improved by establishing a longer lasting therapeutic alliance. SMS sent via mobile phones is an adequate tool to establish therapeutic contingency as was shown in a study on bulimia. The interaction between patients and a psychologist by exchange of messages using SMS (short messages service) via mobile phones will be the core element of the intervention programme. On a weekly basis, patients will supply information on four rating scales regarding subjective well-being, sleep, social contacts, and attitude towards medication. The patient's status is then rated as improved, deteriorated, or unchanged compared to the previous week within the functional/dysfunctional range and with respect to each of the four key ratings.

Methods: Feedback-messages had to be generated for all possible conditions, based on clinical experience and the psychotherapeutic principals acknowledgement, support, suggestions for behaviour modification.

Results: Operationalisation were defined and about 1200 feedback messages were phrased. A special server and a software programme will constitute the communication hub.

Conclusions: The ultimate goal of the intervention is to reduce relapse rates in young schizophrenic patients. Feasibility and acceptance still have to be assessed.

S04.04

Monitoring and feedback of outcome in inpatient psychiatric care

B. Puschner, D. Schöfer, C. Knaup, T. Becker. *Department of Psychiatry II, Ulm University, Günzburg, Germany*

Background and aims: Continuous monitoring and feedback of outcome has been shown to improve effect of outpatient psychotherapy. Some studies on the benefits of outcome mangement in psychiatric community care are underway (FOCUS, MECCA), while there is a lack of evidence for inpatient psychiatric treatment.

Methods: During one year, $N = 294$ participants will be recruited consecutively among patients admitted to a large psychiatric hospital in rural Bavaria ("Bezirkskrankenhaus Günzburg"). All participants are asked to provide information on treatment outcome via weekly computerised assessments (German version of the OQ-45.2). Patients and clinicians in the intervention group receive continuous feedback of outcome. Efficacy of the intervention will be scrutinised by means of a prospective cluster-randomised study measuring comprehensive outcome data at three measurement points (admission, discharge, and six-month follow-up).

Results: Recruitment started in September 05 and has not yet been completed. First results indicate acceptance of outcome management is high among participating clinicians and patients: Most clinicians say that receiving continuous information on patient-rated treatment outcome is a valuable addition to their clinical routine, and can be of use for treatment planning. Furthermore, preliminary results on patient acceptance as well as on the effect of the intervention will be presented.

Conclusions: Potential of continuous outcome monitoring and management for improving the quality of inpatient psychiatric care and contributing to an adaptive allocation of treatment resources will be discussed.

S17. Symposium: mental health and work-related disability

S17.01

Transition from work to disability: are modern disability schemes attracting people from work to disability pension?

A. Mykletun [1,2,3], T.T. Wøien [2], N. Glozier [1], S. Overland [2]. [1]*Institute of Psychiatry, Kings College, London, UK* [2]*Research Centre for Health Promotion, University of Bergen* [3]*Norwegian Institute of Public Health, Division of Epidemiology, Department of Mental Health, Oslo, Norway*

Background: Disability expenditure is increasing across most OECD countries despite improvements in key health indicators. This questions the relevance of health for disability pension award. Economic rational choice theory offers an alternative model with focus on economic incentives, and despite lack of convincing empirical support, the model has strong impact on policy making. The aims of the present study is (1) to investigate the effects of economic incentives upon disability pension award, and (2) to examine if this hypothesized effect is confounded by mental and physical health problems.

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Methods: Data were obtained from the Hordaland Health Study (HUSK) in Norway, 1997–99, where the participants completed a thorough survey on mental and somatic health. End-points were identified in the National Insurance Administration applying record linkage by the national personal identification number during four year follow-up. The variable for economic incentives for disability pension award (EIDP) was operationalized as the ratio between the potential disability pension and current income.

Results: During follow-up, 3% were awarded disability pension. In accordance with the rational choice model, there was a dose–response association between EIDP and disability pension award, and the effect was strong compared to effects of e.g. health-related variables. Mental and physical health hardly confounded the association.

Conclusions: Economic incentives seems to predict disability pension award, which supports the rational choice model. Surprisingly, health did hardly confound this association. The finding has implications medical doctors in their role as gate-keepers and generally in the organization of the welfare system.

S17.02

Does the scientific community recognize the impact of mental health on work-performance, sickness-absence and disability?

S.N. Oeverland. *Research Centre for Health Promotion, Faculty of Psychology, University of Bergen, Norway*

The steady increase in health-related benefit expenditure throughout the OECD countries poses a need to change practice or even reform policies, but according to a recent review, the knowledge basis to inform changes in policy, legislation and clinical practice is scarce.

The aim of the presentation is to depict the current contribution from mental health research onto health-related benefits. Several medical and social risk-factors for benefits are known, but the pathways of how risks turn to benefit expenditure is yet largely unknown. There is an enormous discrepancy between the amount of money spent on benefits and what is spent on research into its causes, and this is also evident for mental health research, as most health-related benefits are warranted from muscle-skeletal and psychiatric disorders. Besides the direct costs from benefits, expenses from loss of productivity through sickness-presence despite a mental illness are substantial. However, increased sickness-presence is often suggested as an intervention to decrease stigma and ease transitions when returning to work. The main idea behind benefits is alleviation and security for individuals who are not capable of generating an income due to their health, but the consequences of receiving benefits on health, and in particular mental health, are not known.

In conclusion, the optimal intercept between reducing benefit expenditure and increased inclusion in work-life should not be left for economic calculations alone, and the complex interplay between risks, contextual factors and policy should invoke mental health research to be conducted on, and inform benefit schemes.

S17.03

Common psychological symptoms, functioning and work related disability

N. Glozier. *Health Services Research, Institute of Psychiatry, King's College, London, UK*

Epidemiological studies consistently demonstrate that symptoms are very common and a strong link between the existence of physical and mental symptoms. The vast majority of the symptomatic working age population are actually at work and medical diagnosis has little influence upon this. Sickness, absence and disability pension/benefits are generally social constructs. The path from being "well" to soial welfare recipient consists of a number of decision points. Using the Internatinal Classification of Functioning as a framework I will present data showing that functioning has a much stronger association than symptoms or diagnosis with absence and disability status. Most of our knowledge is based upon the classic risk factor paradigm. I will use CHD and common mental illness to show the discordance between "risk factors" and "causes" in determining absence and return to work and how interventions can reduce these outcomes with no or little effect upon symptoms. This suggests a modified approach (and the questions asked in research) to alleviating psychosocial disability.

S17.04

The long-term effect of insomnia upon disability

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Background and aims: Chronic insomnia is common in the general population. Its effect upon an individual's functioning and disability is usually attributed to an underlying condition and so the diagnosis of insomnia does not qualify for the award of a disability pension in the US or Europe. The aim of this study was to investigate whether DSM-IV defined insomnia contributed to long-term work disability.

Methods: Employing an historical cohort design, baseline data were gathered from a population based Norwegian health study of 37 308 working age people not claiming disability pension through 1995–97. The outcome was a subsequent award of a disability pension (18 to 48 months after the health screening), as registered in the National Insurance Administration.

Results: Insomnia was a strong predictor of subsequent permanent work disability (adjusted odds ratio (OR 3.90, 95% confidence interval (CI) 3.20, 4.76). Socio-demographic and shift work characteristics had little confounding effect (adjusted OR = 3.69, 95% CI 3.00, 4.53), and this association remained significant after adjustment for psychiatric and physical morbidity, and health-related behaviours (adjusted OR = 1.75, 95% CI: 1.40, 2.20).

Conclusions: This suggests that insomnia should receive increased attention as a robust and independent risk factor for subsequent work disability.

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Do patients with mental disorders drop out of the labour market? Recommendations for treatment and prevention.

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Objective: To examine predictors and course of vocational status, income and subjective quality of life (QoL) under the perspective of so-

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cio-economic underachievement and decline in a sample of people with severe mental illness in a naturalistic longitudinal design.

Method: 176 subjects diagnosed with schizophrenia or affective disorders were interviewed during an index hospitalisation. Follow-up interviews were conducted 12 and 30 months after. Random coefficient models (multilevel models) were used to examine the predictors and course of the variables of interest simultaneously.

Results: Higher vocational status was predicted by few psychiatric hospitalisations and more work experience (years). Status decreased in first-admission subjects with prolonged hospitalisations during follow-up. Income was positively influenced by a higher age of onset, better vocational status and higher education, but did not change over time. QoL significantly improved and was positively influenced by vocational status. Subjects with an affective disorder showed lower QoL.

Conclusion: Including employment issues early in treatment is especially important for people with an early illness onset and those with more severe forms of psychiatric disorder. A life course perspective enhances the understanding of patients' vocational potential and needs for support.

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