Objective: The clinical efficacy of drugs targeting the central nervous system critically depends on the compounds' ability to pass the blood-brain barrier, which is regulated by active transporter molecules, such as ABCB1 (MDR1, P-glycoprotein (P-gp). One of the reasons for an only partial response or refractoriness is an insufficient intracerebral concentration. We hypothesized that genetic variability in ABCB1 influence the response to drugs with central nervous system (CNS) actions, including the clinical response to antidepressants. We used transgenic mice lacking the two homologues of the human ABCB1 drug transporter gene (abcb1a and abcb1b) to assess whether antidepressants were substrates of P-gp following subchronic administration. We than genotyped 56 single nucleotide polymorphisms (SNPs) in ABCB1 in 286 depressed in patients treated with antidepressants and tested for associations with treatment response. The animal experiments showed that the intracerebral concentrations of some but not all antidepressants were regulated by P-glycoprotein. In the human genetics studies, there was an association of ABCB1 SNPs with remission status after 6 weeks of antidepressant treatment. This association was present in patients treated with antidepressants that are substrates of P-gp, but not in patients treated with antidepressants that are not substrates of P-gp. Our findings indicate that polymorphisms in ABCB1 influence intracerebral concentrations of antidepressants and by that response to treatment. Genotyping ABCB1 polymorphisms may thus help to optimize antidepressant treatment. These implications are likely to extend to other classes of CNS drugs.

S-15-04

Adverse drug reactions: Role of pharmacogenomics

P. Zill. *Psychiatric CLinic, Munich, Germany*

Objective: The inter individual variability of drug response is a major problem in clinical practice and drug development, which can lead to therapeutic failure or adverse effects in patients. There is growing evidence that not only the involvement of pharmacokinetic factors (drug metabolism) might predispose to adverse effects, but also genetic variations in drug targets (pharmacodynamic factors) play an important role. Moreover the existence of comorbid disorders, as for example the metabolic syndrome, characterized by elevated abdominal obesity, triglycerides, blood pressure, fasting glucose, which has been suggested to be associated with depression and schizophrenia is supposed to have an impact on the incidence of side effects after psychopharmacological treatment. rous previous studies could demonstrate an involvement of polymorphisms in drug metabolizing enzymes (e.g. Cyp450 system), as well as in drug target genes and the incidence of adverse effects, but these results remain partially inconclusive.

Results: In own studies with 160 schizophrenic patients and 272 patients with major depression we found that a −579C/T polymorphism in the 5-HT2C gene seems to be involved in weight gain during neuroleptic and antidepressant treatment. The 5HT2C −597 C/T and a β2-adrenergic receptor polymorphisms (Arg16Gly) might also be involved in glucose metabolism.

Conclusion: These results suggest that symptoms of the metabolic syndrome are among the common side effects, but these findings have to be replicated in further prospective studies. Knowledge from these studies will ultimately lead to the individualization of psychiatric drug treatment, as well as to future treatment strategies. This project is supported by the German Federal Research Ministry within the promotional emphasis "Competence Nets in Medicine"

S-21. Symposium: Anxiety and depression, first results of the DSM-5 steering group

Chairperson(s): David Goldberg (London, United Kingdom), Kenneth S. Kendler (Richmond, USA)
08.30 - 10.00, Gasteig - Philharmonie

S-35. Symposium: Psychosocial aspects of depressive disorders in ethnic minority groups

Chairperson(s): Francis Creed (Manchester, United Kingdom), Christian Haasen (Hamburg, Germany)
14.15 - 15.45, Holiday Inn - Room 6

S-35-01

Prevalence of depression in people of Pakistani origin in U.K.

F. Creed. *University of Manchester, Manchester, United Kingdom*

Objective: To assess whether depression is more common in people of Pakistani origin than white Europeans living in U.K. To assess also whether the prevalence is associated with life stress.

Methods: Survey of population based sample of 928 people of Pakistani family origin and 947 white Europeans. Two phase study using Self-Report Questionnaire (SRQ) and SCAN diagnostic interviews to assess depression. Life Events and Difficulties Schedule for life stress.

Results: At baseline there was a higher prevalence of depression among Pakistani women (32%) compared with European women (19%), European men (13%) and Pakistani men (9%). Depression was particularly prevalent in older Pakistani women and was closely associated with severe social stress and lack of support. There was no difference in the course of depression over 6 months between the different ethnic groups.

Conclusion: The high prevalence of depression in Pakistani women is a result of severe social stress and lack of adequate social support.

S-35-02

Depression among migrants of Turkish and Russian origin living in Germany

C. Haasen. *University Hospital Eppendorf, Hamburg, Germany*

A depressive reaction to the stress associated to migration and the acculturation thereafter has been described in the literature. Furthermore, depressive syndromes among migrants are reported by clinicians to involve somatization more frequently, despite the fact that somatization has not been found to be more frequent in different regions of the world. There is insufficient evidence on the

association between acculturation stress and depressive symptomatology, as well as the extent of somatization symptoms and their relation to acculturation stress. In two studies among Turkish and Russian migrants in Germany these relationships were analysed, of which the results will be presented.

S-35-03

Social stress and depression in women in Pakistan

H. Nusrat. *University of Manchetser, Manchester, United Kingdom*

Background: Previous studies have reported a high prevalence of depression in women in Pakistan. This study investigates whether risk factors for chronic depression established in studies performed in Western countries can explain this high prevalence.

Method: A two-phase survey using the self-rating questionnaire (SRQ) and the Psychiatric Assessment Schedule was performed on a population sample in rural Pakistan. Demographic data and results of the Life Events and Difficulties Schedule Interview were analysed in relation to SRQ score and psychiatric disorder.

Results: 145 women were screened. High SRQ score was associated with low educational status, not having a confidant, having 4 or more children, being older, not being married and living in a house with more than 3 people per room. Regression analysis demonstrated that the first three of these independently contributed to SRQ score. In the interviewed sample (74 women) only educational level independently contributed to the presence of depression. The least educated group experienced the greatest number of marked difficulties: 67% of them had experienced both marked housing and financial difficulties compared to 28% and 25% of the other educational groups (p=0.005). Experiencing both housing and financial difficulties was a significant risk factor for depression in women with secondary education, but not for those without secondary education.

Conclusion: This study suggests that high levels of social adversity and low levels of education are strongly associated with depression in women in Pakistan and the other vulnerability factors found in the West may be less important in this population.

S-35-04

Gender differences in factors associated with psychological distress among immigrants from low and middle-income countries: Findings from the Oslo Health Study

S. Thapa, E. Hauff. *Institute of General Practice, Oslo, Norway*

Objective: Despite the high rate of migration from low and middle-income countries to high-income countries, there is still a lack of comprehensive studies of gender specific differences in psychological distress in a diverse group of immigrants. We compared psychological distress between male and female immigrants from low and middle-income countries living in Oslo, and identified factors associated with distress for men and women, separately.

Methods: A cross-sectional survey with self-administered questionnaires was conducted among 1536 immigrants from low and middle-income countries living in Oslo. The Hopkins Symptom Checklist (HSCL-10) was used to measure psychological distress. Data on their sociodemographic characteristics, negative

and traumatic life events, and social integration and possible discrimination in the Norwegian society were also collected.

Results: One-fourth of the study population was found psychologically distressed, with almost equal levels among men and women. Lack of salaried job and recent negative life events were independently associated with psychological distress for both genders. Furthermore, experience of denial of job and past traumatic experiences were other associated negative factors among men, while visits made by Norwegians appeared as a protective factor against distress among men. Older age, Middle East background, living without a partner, and experiencing denial of housing were other associated negative factors among women.

Conclusion: Our findings show that except for adverse living conditions, there are gender differences with regards to factors associated with psychological distress among immigrants living in Oslo. Such gender issues are relevant for assisting immigrants in the integration process as well as for future research in migration and health.

Monday, April 4, 2005

S-34. Symposium: Neurobiology of suicidal behaviour

Chairperson(s): Cornelis van Heeringen (Gent, Belgium), Ina Giegling (Munich, Germany)
14.15 - 15.45, Holiday Inn - Room 2

S-34-01

Genetic risk factors as possible causes of the variation in European suicide rates

A. Marusic. *Institute of Public Health of, Ljubljana, Slovenia*

Objective: The current state of knowledge of genetic predisposition towards the suicidal behaviour allows for a question whether genetic risk factors account for the variation in suicide rates through time and space. Accordingly, the lecture will attempt to tackle the genetics behind suicidal behaviour from the perspective of the populational genetics. First, suicide rates variability of suicide rates across Europe is discussed. This is followed by a brief discussion of the J curve (on a map of Europe, the 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 of genes and environment 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.