#### S72. Quality of life

Chairmen: P Bech, J Orley

#### **QUALITY OF LIFE IN ANXIETY**

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The Zurich cohort study followed an enriched sample of the community over a fifteen year period. Five interviews were carried out when the subjects were aged 20 until 35. The last interview assessed quality of life. The questionnaire was concerned with the preceding 12 month period and appraised 9 domains of life: work/housework, finances, parents/siblings, friends, partner, own family, physical wellbeing, psychological well-being, childhood in retrospect. Diagnoses of 6 anxiety disorders were made according to DSM-III criteria: panic disorder, GAD, agoraphobia, social phobia, specific phobia, OCD; in addition, panic attacks (> 1/3) and subthreshold obsessivecompulsive syndromes were diagnosed. In comparison to controls, across all domains, OCD subjects scored lowest in quality of life, followed by subjects with panic disorder, agoraphobia, GAD and social phobia. Simple phobia did not reduce quality of life substantially. Physical and psychological well-being was generally reduced among subjects with anxiety disorders whereas the consequences for work and finances or relationships with partners and friends were less severe. Subjects with OCD, agoraphobia and social phobia showed lowered quality of life in partnerships. In retrospect the quality of life of childhood was seen as lower than the quality of the actual life. This was also shown to be the case for the controls.

### THE VALIDITY OF QUALITY OF LIFE MEASUREMENTS IN MAJOR DEPRESSION

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The clinical outcome measures of major depression are disability scales like the Hamilton Depression Scale (HAM-D), i.e. clinically rated symptoms. In contrast, quality of life scales in depression are typically self-rating scales. Among depression questionnaires the Beck Depression Inventory (BDI) is a disease-specific scale while the Zung Self-rating Depression Scale (SDS) is a generic scale based on the Affect Balance Scale, i.e. measuring both positive and negative well-being.

The most widely used quality of life scale is the Psychological General Well-Being Scale (PGWB) which also is based on the Affect Balance Scale. Clinical Studies with PGBW have shown that the scale has high validity in predicting early dropping out of patients of the acute treatment of depression (better than clinicians' scales) and in predicting recurrence of depression in long-term treatment of manic-melancholic patients. The PGWB has also been used to define recovery in medium-term continuation therapy. i.e. as a quality of assessment criterion.

### QUALITY OF LIFE INSTRUMENTS IN SCHIZOPHRENIA: A COMPERATIVE STUDY

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A comparative study is currently underway to assess the performance of various generic and specific Quality of Life instruments.

A group of schizophenic outpatients receiving different neuroleptic maintenance treatments is presently being studied with the use of the following instruments for obtaining information on:

- sociodemographic and clinical data (Ad hoc protocol)
- psychopathology (Positive And Negative Syndrome Scale);
- disability level (Disability Assessment Scale);
- quality of life [Medical Outcomes Study Short Form-36, Lehman's Quality of Life Interview (short version), and the Sevilla Quality of Life Scale (currently being developed in five Spanish universities, namely, Sevilla, Oviedo, Valencia, Madrid and Pamplona)].

Our analysis focusses on relationships between the category "General Life Satisfaction" and the various subcategories related to psycopathology, disability and quality of life and sociodemographic and clinical parameters.

Several different statistical methods will be employed (correlation analysis, multiple linear regression, multidimensional scaling, etc.). All statistical methods will be used as explorative rather than confirmative tools.

#### QUALITY OF LIFE: THE WHOQOL

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WHO has developed an instrument (set of questions) to assess quality of life (QOL), working in 14 different countries around the world, both developed and developing. The development process involved the holding of focus groups in each centre to explore the concept of QOL and its components and to suggest ways of asking about those components. It became evident that there was high agreement about what aspects of life were considered important. These fall into 6 domains; physical, psychological, level of independence, social relationships, environment and a spiritual domain. Each domain is explored by a set of subdomains (facets) e.g. the physical by pain and discomfort, energy and fatigue, sleep and rest. Although some centres around the world suggested somewhat different ways of exploring a particular facet (e.g. self-esteem), the analysis of data did not justify including items that were idiosyncratic to a particular culture. There was therefore a common core of questions that explained QOL very adequately in all participating centres.

The instrument developed (the WHOQOL), is a generic one which was piloted on a wide group of patients, including psychiatric. This paper presents data relating to the application of the WHOQOL to psychiatric patients and examines the question as to whether a condition specific instrument is necessary, or whether in fact, a generic QOL instrument should suffice for psychiatric patients. This in turn depends on how quality of life is defined.

#### QUALITY OF LIFE IN PSYCHIATRY

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Quality of life is an elusive concept and there is little consensus about its definition. Consequently, it is difficult to devise methods for the measurement of quality of life in any of the groups concerned with health care — the patients, their families, their communities and staff providing health care.

Measuring quality of life in mental health care is even more complex because of difficulties in communication (which are core symptoms for certain mental disorders) and because of the overlap of certain psychiatric symptoms (e.g., some of the symptoms of depression) and statements which people make about their quality of life.

The paper will summarize the difficulties and issues arising in

efforts to measure quality of life in psychiatric patients and present reasons why quality of life should nevertheless be measured in psychiatric patients — reasons perhaps even more compelling in psychiatry than in other field of medicine.

### S73. Psychiatric genetics and studies of relatives of psychotic patients

Chairmen: T Sharma, A Vita

## NEURODEVELOPMENTAL MODEL(S) OF SCHIZOPHRENIA AND APPROACHES TO THEIR VALIDATION

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Several neurodevelopmental models have been proposed for schizophrenia: the early model which posits a fixed lesion during intra or perinatal life which interacts with normative postnatal maturation, a late model which implicates a primary derailment in postnatal periadolescent brain maturational processes, and a risk-diathesis model in which psychosocial risk factors interact with genetic vulnerability to cause the disorder.

In this paper, we critically evaluate each of these models; we propose that the facts best fit a continuous transaction model in which the schizophrenic syndrome results from a cascade effect of derailment in early and late maturational processes of brain development interacting with adverse humoral and psychosocial factors as well as protective factors continually during childhood and adolescence.

Finally, we will review the testable predictions generated by these models, and critically evaluate the various research strategies (i.e., the generic and biobehavioural high-risk strategies, follow back strategies, birth cohort studies, etc.) that will potentially further our understanding of the neurodevelopmental pathogenesis of schizophrenia. We suggest that an "enriched" high-risk paradigm (in which subjects at high genetic risk are further selected on the basis of neurobehavioural vulnerability markers) is likely to be a cost-efficient strategy for future high risk studies investigating the neurodevelopmental pathogenesis of schizophrenia.

# LOSS OF DEVELOPMENTAL TORQUE IN FAMILIAL SCHIZOPHRENIA — A VOLUMETRIC MAGNETIC RESONANCE IMAGING STUDY USING UNBIASED STEREOLOGY

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The goal of the study was to determine whether familial schizophrenic patients and their unaffected first degree relatives differed from healthy subjects in regional cerebral asymmetries. Regional volumes corresponding to prefrontal, premotor, sensorimotor, occipitoparietal, and temporal lobes in each hemisphere were measured on contiguous 1.5 mm 3D MRI images in 28 patients, 55 relatives and 39 controls using a new software based on stereological principles and capable of unbiased volume estimation.

This study revealed a significant abnormality of cerebral hemispheric volume asymmetries in patients with schizophrenia. The healthy comparison subjects showed a systematic pattern of asymmetries, with prefrontal, premotor and temporal regions larger on the right and sensory motor and occipito parietal regions larger on the left. In contrast, the patients did not show this pattern; they had low absolute asymmetry of all regions and reversed asymmetry of the occipito-parietal and prefrontal regions. The loss of asymmetry was present in both dextral and non-dextral schizophrenic subjects. In addition, transmitting parents (presumed obligate carriers), who are themselves unaffected, showed the same reversal as the schizophrenic family members. The absence of normal cortical asymmetry in familial schizophrenia and the unaffected parents lends support to an early neurodevelopmental abnormality that is likely to be genetic in origin.

### A PET STUDY OF WORD GENERATION IN OBLIGATE CARRIERS OF THE PREDISPOSITION TO SCHIZOPHRENIA

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Building on previously reported findings of a qualitatively different functional anatomy underlying word generation in chronic and acute [drug naive] schizophrenics and normal individuals we have studied presumed obligate carriers of the predisposition to schizophrenia. These individuals are drawn from multiply affected kindreds but are themselves clinically unaffected. We have used PET to measure regional cerebral blood flow (rCBF) in 11 obligates and 9 normal controls. Subjects were scanned while articulating words provided by the experimenter at a rate of 1 every 5 s, and also while articulating self-generated words at the same rate. The difference in rCBF between the two conditions indicates the pattern of cerebral activity associated with word generation. Obligates demonstrate a widespread pattern of aberrant activity within frontal systems associated with the execution of internally generated acts. These findings are consistent with theories implicating a heritable component to the brain dysfunction seen in schizophrenia.

## SCHIZOPHRENICS AND THEIR ADOPTED-AWAY OFFSPRING. THE FINNISH ADOPTIVE FAMILY STUDY OF SCHIZOPHRENIA

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The National sample of the Finnish Adoptive Family Study of Schizophrenia consists of all adopted-away offspring (N = 183) of schizophrenic women hospitalized in Finland (N = 19447). The index offspring have been blindly compared with adopted-away offspring of nonpsychotic biological mothers. At initial assessment 345 (92%) out of total 376 adoptees (Index/controls) and their biological and adoptive parents and rearing families were interviewed and tested individually and jointly. At follow-up interviews (on average 15 years later) most of the adoptees available have been personally interviewed with PSE, SCID-2 and SIS schedules. DSM-III-R diagnoses have been given to the biological mothers and their adopted-away offspring.

There is more schizophrenia and "schizophrenia spectrum disorders" in adopted-away offspring of biological mothers with schizophrenia or with "schizophrenia spectrum disorders" as compared with control offspring. Schizophrenia Spectrum here is defined as