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**Background and Aims:** Schizophrenia is a major mental disorder that have a multifactorial ethiology, but genetic and hyperactivity of dopamine receptors also have an important role. Free radicals such as super oxide, nitric oxide cause cell injury when they are generated in excess or when the antioxidant defenses are impaired. Both of these processes seem to be affect schizophrenia. This study was designed to determine a correlation between schizophrenia and stress oxidative factors.

**Methods:** This study was carried out 60 schizophrenic patients and 180 normal subjects as a control group based on DSM-IV-T.R. criteria. The two groups were paired match based on age, sex, and confounder factors such as smoking.

For determination of stress oxidative indexes we used three methods such as Sath (for lipid peroxidation) Hu (for thiol groups) and FRAP (for antioxidant capacity). Analysis was done by statistical tests, also correlation severity by odds ratio analysis.

**Results:** The mean value of thiol groups in schizophrenic group was significantly lower than control group ( $P=0.0001$ ), and also the mean value of FRAP (Ferric Reducing Ability of Plasma) index was significantly lower than control group ( $P=0.0001$ ), but the mean value of TBA was more than control group with  $P=0.103$  was not significant.

**Conclusion:** There was significantly negative correlation between schizophrenia and thiol groups. This data revealed that antioxidant defense mechanisms might be impaired in schizophrenia, these findings also provided theoretical bases for the development of new strategy in the treatment of schizophrenia, such as antioxidant supplement.

Key words: FRAP, Schizophrenia, Thiol, Lipid peroxidation, Stress oxidative

## P0212

Vocational rehabilitation for schizophrenic patients in Germany: Is it cost-effective in the long run?

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**Background and Aims:** Little is known about the effectiveness and the cost of care for patients treated in vocational rehabilitation programs, although vocational therapy is an essential part of inpatient treatment or community care of patients with schizophrenia.

**Methods:** As a part of a randomised controlled trial in 5 centres, the long-term direct cost of care for patients with schizophrenia, being treated with different vocational rehabilitation programs during an index-stay in a psychiatric hospital were assessed. Results were compared to controls who received non-specific ergo-therapeutic treatment instead.

**Results:** Cost differences between study patients and controls were small and not statistically significant. However, cross-centre costs differed considerably.

**Conclusions:** In spite of standardized inclusion criteria and a randomised assignment of study patients, a selection bias, triggered by the differing vocational rehabilitation programs is assumed as a source of cross-centre cost-variation which might be supported by differing service offers in the study regions.

## P0213

Incidence of schizophrenia is not declining in Finland - any more

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**Background:** Since 1980s, several reports, based mainly in hospital registers, have suggested that the incidence of schizophrenia is decreasing. However, changes in capacity of mental hospitals, in admission policy and in diagnostic practice have not always been taken into account.

**Aims:** Our aim was to study 1) how annual first admission rate for schizophrenia varied during a quick deinstitutionalisation period in Finland and 2) how it was associated with changes in admission policy and diagnostic practice.

**Methods:** From the National Hospital Discharge Register, we identified 30 041, 15 to 64 year old patients admitted for the first time for schizophrenia to mental hospital in Finland between 1980 and 2003, as well as numbers of annual inpatient days in and all patients admitted to mental hospitals. Rates for all admitted patients and first-admitted schizophrenia patients (RFASpo) were calculated and analysed with Poisson regression analysis.

**Results:** RFASpo decreased from 56.4 in 1980 to 29.5 in 1991, stayed stable until 1998 and slightly increased thereafter (30.8 in 1998 and 37.8 in 2003). Changes in RFASpo, coincided with changes in all admissions and periods of official diagnostic classifications. RFASpo varied also between gender and age groups.

**Conclusions:** In 1980s, decrease of first-admission rate for schizophrenia seemed to be dependent on change in admission policy, in number of mental beds available and in diagnostic practice. In 1990s, increase of first-admission rate for schizophrenia may be associated with economic recession and increased number of beds for adolescents.

## P0214

Sexual dysfunction and quality of life in schizophrenia

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**Backgrounds and Aims:** Sexual dysfunction are frequent in schizophrenia. Little is known about association between quality of life and sexual dysfunction in men with schizophrenia.

**Method:** Sexual dysfunction was assessed in 34 male outpatients with schizophrenia using a self completed gender specific questionnaire. Patients' mental state was rated using Positive and Negative Syndrome Scale (PANSS). Current medication was recorded. Quality of life was assessed using Schizophrenia Quality of Life Scale (SQLS).

**Results:** Sexual dysfunction occurred in majority of patients. Patient with sexual dysfunction reported significantly lower ratings on global quality of life.

**Conclusions:** People with schizophrenia report high rates of sexual dysfunction. The overall importance of sexuality in the lives of patients with schizophrenia is suggested by significant inverse relationship between sexual dysfunction and global quality of life ratings.

## P0215

Dissociation in patients with schizophrenia: Relationships with childhood trauma and psychotic symptoms

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**Background and Aims:** Only few studies have investigated the relationship between childhood trauma and dissociative symptoms in patients with schizophrenia spectrum disorders. Moreover, most of the existing studies did not pay attention to potential relationships between dissociation and psychotic symptoms.

**Methods:** We examined 103 consecutively admitted patients with schizophrenia spectrum disorders using the Childhood Trauma Questionnaire (CTQ), the Dissociative Experiences Scale (DES) and the Positive and Negative Symptom Scale (PANSS). Relationships between dissociative symptoms, childhood trauma and psychotic symptoms were examined at admission (t0) and when patients were stabilised (t1).

**Results:** The DES mean score decreased significantly between t0 and t1 ( $M=20.1$  vs.  $M=14.5$ ). When patients were stabilized, sexual abuse, physical abuse, emotional abuse and the CTQ total score were significantly correlated with the DES total score ( $r=.36^{**}$ ,  $r=.20^{*}$ ,  $r=.28^{**}$ , and  $r=.32^{**}$ ) and different subscales of the DES, most strongly with the amnesia subscale. The amnesia subscale of the DES also showed significant correlations with physical neglect ( $r=.28^{**}$ ). At t1, positive symptoms as measured by the PANSS were correlated with the depersonalisation subscale of the DES ( $r=.24^{*}$ ). No relationship existed with negative symptoms.

**Conclusions:** Our results confirm the relationships between childhood trauma and dissociation in patients with schizophrenia spectrum disorders. Furthermore, they suggest a relationship between dissociation and positive, but not negative psychotic symptoms.

## P0216

Magnetic resonance imaging of the frontal lobe in twins with schizophrenia

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**Background and Aims:** Neurocognitive and functional neuroimaging studies point to frontal lobe abnormalities in schizophrenia. Molecular and behavioural genetic studies suggest that the frontal lobe is under significant genetic influence. We carried out structural magnetic resonance imaging (MRI) of the frontal lobe in monozygotic (MZ) twins concordant or discordant for schizophrenia and healthy MZ control twins.

**Methods:** The sample comprised 21 concordant pairs, 17 discordant affected and 18 discordant unaffected twins from 19 discordant pairs, and 27 control pairs. Groups were matched on

sociodemographic variables. Patient groups (concordant, discordant affected) did not differ on clinical variables. Volumes of superior, middle, inferior and orbital frontal gyri were calculated using the Cavalieri principle on the basis of manual tracing of anatomic boundaries. Group differences were investigated covarying for whole-brain volume, gender and age.

**Results:** Results for superior frontal gyrus showed that twins with schizophrenia (i.e. concordant twins and discordant affected twins) had reduced volume compared to twins without schizophrenia (i.e. discordant unaffected and control twins), indicating an effect of illness. For middle and orbital frontal gyrus, concordant (but not discordant affected) twins differed from non-schizophrenic twins. There were no group differences in inferior frontal gyrus volume.

**Conclusions:** These findings suggest that volume reductions in the superior frontal gyrus are associated with a diagnosis of schizophrenia (in the presence or absence of a co-twin with schizophrenia). On the other hand, volume reductions in middle and orbital frontal gyri are seen only in concordant pairs, perhaps reflecting the increased genetic vulnerability in this group.

## P0217

Co-occurrence of childhood trauma and adult psychosis: A picture of co-morbidity

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**Introduction:** The deleterious effects of childhood trauma are widely known and documented in community samples. Recent studies have shown higher rates of childhood traumatic events in the psychiatric population. These studies suggest that men and women who have experienced childhood trauma and who have severe psychiatric symptoms reliably report their own experiences.

**Methods:** Men and women, ( $n=184$ ) between the ages of 18-65 years with a history of serious mental illness, capacity to give informed consent, and either English or Spanish fluency, were recruited from various outpatient clinics in New York City. Concepts measured focused on the themes of abusive experiences (psychological abuse, physical abuse, sexual abuse, and witnessing domestic violence) and dysfunctional household environment (substance abuse, mental illness, criminal imprisonment of family member). Data were analyzed in SPSS 13.0 using basic descriptive statistics and linear regression models.

**Results:** Men (70 or 67.3%) reported nearly twice the rate of physical abuse (30.9%) reported by females ( $P<.001$ ). Of the men and women in the sample, 26.8% reported having had the childhood experience of sexual and physical abuse. A very small percentage of the sample population reported sexual abuse without accompanying physical abuse (11.6%). Psychiatric co-morbidity was assessed with different screening methods including positive and negative psychotic symptoms, PTSD, dissociative symptoms and affective disorders.

**Conclusion:** The results suggest a close interaction between repetitive childhood trauma and the complexity of symptoms. A re-conceptualization of the diagnostic criteria as complex PTSD is needed to explain this phenomenon.