The study presented here investigates whether women with severe mental health problems (e.g. schizophrenia) differ from men concerning their needs for care and utilization of as well as benefit from mental health care services.

Study design: For one year, 66 vulnerable schizophrenic patients (26 women and 40 men) were followed after discharge from inpatient care throughout the following twelve months in the highly fragmented mental health care delivery system in Mannheim area. The clinical diagnosis of schizophrenia (according to ICD-10) was confirmed by a SCAN-interview, including PSE 10, which was repeated at the end of the follow-up. For assessing the patients needs for therapeutical interventions and rehabilitation, we applied the "Needs for Care Assessment" every three months. To record the patients passage through the network of mental health care services in the community we applied the Mannheim Service Recording Sheet. It not only records each contact of patients with the services in a defined time interval (weekly) but also each treatment or care-intervention provided by the contacted services. Information was obtained continuously throughout the follow-up period.

Results: There were no sex-related differences in sociodemographic variables in the sample, neither did women and men differ significantly in variables concerning their illness history, such as duration, number of hospital stays, etc. Their need for care was comparable to those of the men, same as the psychopathology at the beginning and end of the follow-up. Nevertheless women showed a significantly higher utilization rate of mental health care services. They not only had a higher number of contacts, but also more interventions provided.

Discussion: We could not confirm that chronically mentally ill women were not adequately served. In contrast, we found an increased utilization rate of outpatient services not due to differences in the course of the disease respectively different need status or psychopathology. Possible explanations could be a lower threshold for the utilization of services or a lower threshold for the perception of psychotic symptoms and the need of therapeutic interventions.

FORMAL CHARACTERISTICS OF DELUSIONS

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We studied 13 formal clinical characteristics of delusions by means of observer-rated ordinal scales in a sample of 74 psychiatric inpatients with mainly schizophrenic or schizophreniform disorders. The interrater reliability of the scales was found to be satisfactory with the sole exception of the item-scale of congruence with the affective state. High levels of conviction about their truth and to a lesser extent lack of dismissibility and lack of resistance against them were found to be the hallmarks of delusional beliefs. The latter finding underscores the fact that contrary to obsessions, delusions are typically "ego-syntonic" subjective experiences although frequently unpleasant ones. In almost one third of the cases, delusional beliefs resulted in aggressive or violent behavior against self or others. The lack of strong intercorrelations among the scales items support the hypothesis that the concept of delusions represents various aspects of patients delusional experiences which are relatively independent of one another.

COGNITIVE FUNCTIONING IN SCHIZOPHRENIC SUBJECTS AND THEIR FIRST DEGREE RELATIVES

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The study investigated memory and intellectual functioning in both schizophrenics (N = 35) and their first degree relatives (N = 77). The two subject groups were compared to a healthy control sample (N = 48). Memory and intellectual functioning was estimated using the Rivermead Behavioural Memory Test (RBMT) and the Wechsler Adult Intelligence Scale-Revised (WAIS-R) respectively. Significantly impaired memory functioning was evident when comparing both schizophrenic subjects and their relatives to healthy controls. Schizophrenic subjects were more impaired on tests of memory functioning in comparison to their relatives. The first degree relatives were comparable to healthy controls on tests of intellectual ability. The schizophrenic subjects were significantly more intellectually impaired than both their relatives and healthy controls. The findings indicate some evidence of a similar neuropsychological deficit in memory functioning in schizophrenics and their first degree relatives.

COGNITIVE DECLINE IN SCHIZOPHRENIA

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The prevalence and course of cognitive impairment schizophrenia remains a point of debate. Is cognitive impairment in schizophrenia a dementing process, markedly declining with age or does cognitive impairment occur in the early stages of development, possibly pre onset of schizophrenia with no further marked decline with advancing age? The study investigates memory and intellectual decline in schizophrenic (n = 83) subjects compared to healthy controls (N = 47) using the Wechsler Adult Intelligence Scale-Revised (WAIS-R), Rivermead Behavioural Memory Test (RBMT) and the National Adult Reading Test (NART) in a cross-sectional study using 5 age related cohorts (18–29, 30–39, 40–49, 50–59 and 60–69 years of age). No significant variation in memory functioning was found across the 5 cohorts for the schizophrenic subjects. However, memory functioning in the control subjects was significantly disparate with impaired performance with increasing age. This found to be related to age effects. The schizophrenic subjects showed impaired intellectual and memory functioning compared to the control cohorts. Memory functioning was not significantly variable when comparing the 60–69 year old schizophrenic/control cohorts. A significant reduction in intellectual ability was evident across the 5 schizophrenic cohorts. The findings indicate that memory functioning does not decline significantly with age in schizophrenia. The healthy subjects memory functioning becomes comparable to schizophrenic subjects between the age of 60–69 years. It is possible that impaired memory functioning in schizophrenia reaches a base level in the early years/or pre-illness and does not deteriorate significantly beyond this level with increasing age and years of illness.

AMISULPRIDE IN THE TREATMENT OF SUBCHRONIC OR CHRONIC SCHIZOPHRENIA WITH ACUTE EXACERBATION: A DOUBLE-BLIND COMPARISON WITH HALOPERIDOL

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Amisulpride is a substituted benzamide selective for dopamine D2 and D3 receptors without activity on other receptors. In animal studies it binds preferentially to limbic receptors, indicating a potentially low propensity to induce extrapyramidal symptoms. In previous studies amisulpride was effective in productive and deficit schizophrenia. The purpose of this multicentre, international, randomized, haloperidol-controlled, double-blind study was to compare the efficacy of amisulpride (AMI) versus haloperidol (H) in the treatment

of chronic schizophrenic patients. 191 hospitalised patients were included in this study. They fulfilled DSM III-R criteria for subchronic or chronic schizophrenia with acute exacerbation. After a 7-day washout period, patients were treated for 6 weeks with 800 mg/d AMI or 20 mg/d H with the possibility to reduce the dose to 600 mg/d or 15 mg/d respectively. Efficacy was assessed with the BPRS, the PANSS Positive and Negative subscales and the Clinical Global Impression (CGI). Neurological safety was assessed using the Simpson Angus scale (SAs), Barnes akathisia scale (BAs) and Abnormal Involuntary Movement Scales (AIMS).

Results: 95 patients were randomised in the AMI group and 96 in the H group. Significantly more patients dropped out of the study in the H group (39) than in the AMI group (25) ($p = 0.04$). ITT analysis showed no statistically significant difference on BPRS total (AMI mean change: 20.9 versus 17.3 for H) and PANSS Positive subscale scores (AMI mean change: 10.4 versus 9.4 for H), although changes were numerically higher in the AMI group. The negative symptoms assessed with PANSS Negative subscale were significantly more improved by AMI (AMI mean change: 7.5 versus 5.1 for H; $p = 0.038$). The response rate (CGI item 2: very much or much improved) in the AMI group was significantly higher than in the H group (62% versus 44%, $p = 0.01$). The efficacy index (CGI item 3), was also significantly superior for AMI compared with H ($p < 0.001$). The severity of extrapyramidal symptoms (SAs) was significantly lower in the AMI group ($+0.06 \pm 0.51$) compared to H group (-0.19 ± 0.70)($p = 0.005$). The global assessment of akathisia (Bas) and symptoms of tardive dyskinesia (AIMS) showed no statistical difference between both groups. Adverse events were more frequently reported in the H group (72 patients with at least one adverse event) than in the AMI group (54 patients), mostly extrapyramidal symptoms. No clinically relevant modifications were observed in biochemistry or haematology tests. Amisulpride showed potent antipsychotic activity in this study, it was significantly superior to haloperidol in improving negative symptoms and induced significantly less extrapyramidal symptoms than haloperidol.

SCHIZOPHRENIA AND IMMUNOINFLAMMATORY PROTEINS

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Objective: The relationships between different immunoinflammatory proteins and clinical status in schizophrenic patients are studied. *Method:* 19 schizophrenic outpatients meeting DSM-IV criteria for paranoid schizophrenia were interviewed in an outpatient clinic. Psychopathology was rated according to PANNS. The same day that psychopathology was recorded a sample of blood was drawn to determine blood levels of the following immunoinflammatory proteins: alpha 1 glicoprotein, ceruloplasmine, alpha 2 macroglobuline and fraction 3 and 4 of the complement. *Results:* A significant positive correlation was found between PANSS' negative subscale and ceruloplasmine and alpha 1 glicoprotein blood levels. The rest of the studied variables (age, sex, number of admissions, age of onset and years of evolution) did not show significant correlations with positive, negative or general psychopathology subscales. *Conclusions:* Ceruloplasmine and alpha 1 glicoprotein blood levels may be useful as biological markers of negative psychopathology in paranoid schizophrenia.

THE EFFECT OF ZIPRASIDONE ON STEADY-STATE PHARMACOKINETICS OF A COMBINED ORAL CONTRACEPTIVE

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Ziprasidone is a novel antipsychotic agent with combined antagonism at $5HT_{2A}$ and D_2 receptors. A double-blind, placebo-controlled, two-way crossover study was conducted to assess ziprasidone's effect on the pharmacokinetics of a combined oral contraceptive. The study was divided into two 21-day treatment periods with a 7-day contraceptive-free interval. A total of 19 healthy female volunteers received 0.15 mg levonorgestrel (LNG) and 0.03 mg ethinyloestradiol (EE) daily on days 1 to 21. On days 8 to 15, the subjects also received either 20 mg ziprasidone or placebo, twice-daily (once-daily on day 15). Plasma samples were collected up to 24 hours post-dose on day 15 for analysis of LNG and EE. Plasma prolactin concentrations were determined pre-dose and 4 hours post-dose on day 15. The pharmacokinetic data showed no statistically significant differences in mean C_{max}, T_{max} and AUC_{24} for EE in plasma when multiple doses of ziprasidone were administered, compared with placebo. There were also no significant differences in mean C_{max} and AUC_{24} for LNG, although there was a statistically significant (but not clinically relevant) difference in mean T_{max}:

Mean pharmacokinetic parameters

	EE			LNG		
	C_{max}* (pg/ml)	T_{max} (hr)	AUC_{24}* (pg·hr/ml)	C_{max}* (ng/ml)	T_{max} (hr)	AUC_{24}* (ng·hr/ml)
Ziprasidone	72	2.9	954	6	2.3	86
Placebo	77	2.3	960	6	1.7	88

*geometric mean

After dosing with ziprasidone, plasma prolactin concentrations pre-dose and 4 hours post-dose were higher than after dosing with placebo. One subject discontinued due to nausea, tiredness, dizziness and vomiting after the first dose of ziprasidone, but no serious adverse events occurred during the study.

CYTOKINES AND SOLUBLE CYTOKINE RECEPTORS IN THE BLOOD AND CSF OF SCHIZOPHRENIC PATIENTS

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Especially the influence of the cytokines to the neurotransmitter metabolism suggests a pivotal role for psychiatric disorders. From that point of view, neuroleptics would be expected to influence immune parameters. It seems that the cellular immune system is less influenced than the cytokine production by neuroleptics. Preliminary results of investigations of the soluble IL-6 receptor (sIL-6R) in schizophrenics show, that the sIL-6R levels are increased in acute unmedicated schizophrenic patients. During neuroleptic treatment sIL-6R levels decrease to the values of controls. Furthermore, results show that the decrease of sIL-6R levels may predict the decrease of schizophrenic negative symptoms during neuroleptic treatment [1]. In contrary, sIL-2R show an increase in schizophrenic patients during neuroleptic therapy. This result fits with the suggested IL-2-antagonistic function of sIL-2R; IL-2 is described to be elevated in the CSF of schizophrenics and to predict a schizophrenic relapse [2,3]. Moreover, in-vitro studies of the neuroleptic action to cytokines, which underline these

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