

behavioural disturbance); public attitudes (eg negative social reactions); economic support for carers (eg financial dissatisfaction).

SES10.03

SPECIAL CARE UNITS FOR DEMENTED PATIENTS

G.B. Frisoni

No abstract was available at the time of printing.

SES10.04

THE BURDEN OF CARE AMONG NURSES IN HOMES FOR THE ELDERLY

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Background: Geriatric caregivers are subject to a high level of occupational stress: shift work, understaffing, care of the severely disabled, frequent confrontation with death and dying. Epidemiological studies indicate that these work stressors frequently lead to physical and mental health problems. Due to the changes following the establishment (July 1, 1996) of a program of long-term care insurance in Germany, occupational stress among geriatric caregivers in long-term care institutions is assumed to have increased.

Design: We aimed to test temporal changes in the job conditions and in job strain by a representative follow-up study in 15 residential homes and nursing homes in the city of Mannheim between 1996 and 1998. 304 geriatric caregivers were surveyed before, 243 caregivers one year and 213 two years after long-term care insurance had been established. 80 persons participated in all three waves.

Results: The results confirmed marked changes in the job conditions of geriatric caregivers in the long-term care institutions observed: Within two years, the number of home personnel had been reduced twice: by 6.6 (1996 to 1997) and 7.4 percent (1997 to 1998); discrepancies between the job expectancies of the caregivers and perceived job conditions had increased significantly, whereas organizational resources had decreased. There also was evidence for an increasing prevalence of physical and mental health problems among the caregivers. Regression analyses revealed that the health problems were best predicted by the increasing discrepancies between job expectancies and perceived job conditions.

Conclusions: To prevent existing health problems from deteriorating, intervention strategies must be implemented to improve the staff/residents ratio as well as caregivers' job resources and qualifications.

S24. Is schizophrenia inscribed on the palm of our hands

Chairs: L. Fañanás (E), J. van Os (NL)

S24.01

ARE THE DERMATOGLYPHIC FINDINGS IN SCHIZOPHRENIA SPECIFIC MARKERS OF THE DISORDER? RESULTS FROM A SAMPLE OF MENTALLY HEALTHY ADULT SURVIVORS OF VERY LOW BIRTHWEIGHT

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Introduction: In the last decade, a number of well-designed studies have demonstrated specific dermatoglyphic abnormalities in schizophrenia. Among these, reduced total ab ridge count (TABRC) has been a consistent finding, but increased prevalence of ridge dissociation (RD) and vestigial patterns (VP), and increased abnormal palmar flexion creases (APFC) have also been recently reported. However, the precise nature of these findings is unclear. Do they represent specific markers of the disorder or are they merely markers of prenatal environmental adversity?

Aims: We sought to address the above question by examining these dermatoglyphic traits in a sample of adult survivors of very low birthweight (VLBW, <1501 g) and mentally healthy normal birthweight controls.

Method: TABRC, RD, VP & APFC (single transverse palmar crease, Sydney line, hypoplastic or broken creases) were measured on 72 VLBW subjects and 69 healthy normal birthweight controls. TABRC was analysed by independent-samples t test and the chi-squared test was used for RD, VP & APFC.

Results: VLBW subjects had significantly lower mean TABRC than controls (81.0 (SD 13.8) vs 76.5 (SD 11.5), $P = 0.04$). Subjects also had more VP & APFC than controls (31% vs 8%, $P = 0.03$). No difference in the prevalence of RD was noted (15% vs 19%, $P = 0.64$).

Conclusion: Similar types of dermatoglyphic and palmar flexion crease abnormalities demonstrated in schizophrenia are also evident in mentally well adult VLBW survivors. These findings suggest the possibility that these abnormalities represent a non-specific marker of adverse prenatal environmental factors, rather than specific markers of the disorder.

S24.02

IS THERE RECOGNISABLE NEUROCOGNITIVE PROFILE ASSOCIATED WITH DERMATOGLYPHIC ANOMALIES IN PSYCHOSIS?

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Introduction: A large proportion of schizophrenic patients present neuropsychological impairment detected early in the evolution of their illness. However a debate exists about the nature of these deficits and its relationship with an early developmental brain lesion. Whether or not cognitive decline in patients is prenatal, associated with the onset of the disease, medication or chronicity is a controversial issue, and no satisfactory solution has been found to date.

High levels of dermatoglyphic fluctuating asymmetry (FA) in schizophrenia have been used as a possible marker for develop-

mental instability to which the developing CNS might have been exposed

The aim of the present study was to verify whether cognitive disturbances in schizophrenic patients are associated with FA.

Method: 57 schizophrenic patients (according to DSM-IV criteria) were administered a battery of neuropsychological tests. These tests were: the Wisconsin Card Sorting Test, Continuous Performance Test and the Trail Making Test.

Dermatoglyphic analysis was conducted blind to the neuropsychological results in all the cases. FA was evaluated by taking the absolute difference of the a-b ridge count between right and left hands.

Results: Correlation between FA and the neurocognitive variables used in the present study were calculated. High scores of FA were associated with poorer neurocognitive performance although our results do not reached statistical significance.

Conclusion: These results suggest the interest to explore the prenatal origin of the cognitive impairment in bigger samples.

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S24.03

CAN THE DERMATOGLYPHIC EVIDENCE BE VALIDATED BY MRI IMAGES?

J. van Os

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S24.04

ASSOCIATIONS BETWEEN DYSMORPHIC FEATURES, DERMATOGLYPHICS AND LATERALISATION IN PSYCHOSIS

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Dysmorphic features, dermatoglyphic abnormalities and atypical lateralisation reflect developmental disturbance and have been shown to occur to excess in schizophrenia. We examine the interaction between these indices of neurodevelopmental disturbance in a sample of individuals experiencing their first episode of psychosis (schizophrenia and affective), a sample with a longer duration of treated illness and matched controls. Findings indicate greater developmental instability in schizophrenia with increased rates of dysmorphic features, lower a-b ridge counts, increased rates of fluctuating asymmetry and atypical handedness. These findings suggest that individuals with schizophrenia may be less able to withstand the usual and often low-grade insults and stresses associated with development.

S24.05

ASSOCIATION BETWEEN CEREBRAL STRUCTURAL ABNORMALITIES AND DERMATOGLYPHIC RIDGE COUNTS IN SCHIZOPHRENIA

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Dermatoglyphic ridge counts i) reflect ontogenic processes during the second trimester of pregnancy, and ii) can be influenced by some of the factors that also affect cerebral development. Therefore, the demonstration of an association between dermatoglyphic

and cerebral structural measures in patients with schizophrenia would give credence to the view that the structural brain abnormalities associated with this disorder have their origins early in development. Twenty-eight male subjects with schizophrenia and 19 male controls underwent MRI scanning and dermatoglyphic analysis. The pattern of associations between ab-ridge count and 9 MRI features was dissimilar in cases and controls for 2 measures. Associations between dermatoglyphic features on the one hand, and frontal CSF ($r = 0.54$, $P = 0.004$) and fourth ventricular volume ($r = 0.38$, $P = 0.05$) on the other, were larger in the cases than in the controls (test for interaction $P = 0.06$ and $P = 0.08$ respectively). These findings, while in need of replication, support the view that the cerebral structural abnormalities seen in patients with schizophrenia are the result of an early pathological process impacting on the development of foetal ectodermal structures.

S25. Part I. Biomed collaborative studies in Europe: results and perspectives

Chairs: M. Maj (I), C.B. Pull (LUX)

S25.01

THE EPSILON STUDY OF SCHIZOPHRENIA IN FIVE EUROPEAN COUNTRIES

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Care for people with schizophrenia was assessed cross-sectionally in five European centres in Amsterdam, Copenhagen, London, Santander and Verona. Research instruments assessing needs, service use and costs, informal carer involvement, quality of life, and service satisfaction were subjected to a conversion procedure (translation, back-translation, focus groups). European instrument versions proved to be reliable. There was substantial variation in the provision of acute and non-acute hospital places and in residential service provision with more acute hospital places in Copenhagen and Amsterdam, few in Santander and Verona and most residential places in Copenhagen. 404 patients with a SCAN diagnosis of schizophrenia were interviewed. Numbers of total needs and unmet needs (not met needs) differed significantly, with most needs in Amsterdam and London. The total annual cost per patient for the combined sample was an estimated £5,038 (95% CI £3,888–6,237), and there were significant differences in service utilisation and costs between the sites. With respect to caregiving consequences there were some differences along a North-South axis (some scores higher in Mediterranean sites). Variation in the patient samples between sites was controlled for in the analyses. In accounting for the differences observed between study centres, cultural differences and variations in the provision of mental health care should be considered.

S25.02

THE PREVENTION OF CRIME AND VIOLENCE AMONG THE MENTALLY ILL

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Increasing numbers of persons with major mental disorders commit nonviolent and violent crimes. The cost to society, in both financial and human terms, is high.