

voluntarily admitted patients who said they came to the hospital involuntarily were 13% in Denmark, 8(3–18)% in Finland, 11% in Iceland, 17(8–21)% in Norway and 5(3–9)% in Sweden.

**Preliminary conclusion:** The degree of discrepancy between legal status and patients' perceptions of coercion differed between countries and institutions within countries.

### S58.5

Measurements of perceived coercion; methodological problems

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Several studies suggest that the patient's experience of being coerced during the admission to mental hospitals, does not necessarily correspond with their legal status. Instruments have been developed to measure perceived coercion, but their validity has not been thoroughly addressed. This paper compares two different ways of measuring perceived coercion used in a large scale study on the use of coercion in the Nordic countries. The instruments used in the study were the MacArthur perceived coercion scale, (which is a part of the frequently used Admission Experience Scale; AES) and a visual analogue scale, called the coercion ladder. The two ways of measuring perceived coercion are compared, and predictors of perceived coercion are determined for each of the two methods.

## S59. Schizophrenia as a disorder of information processing

*Chairs:* C. Höschl (CZ), J. Libiger (CZ)

### S59.1

The role of 5-HT activity in anti-psychotic treatment

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No abstract was available at the time of printing.

### S59.2

Brain metabolism (PET) and cognitive performance in schizophrenia

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Patients with schizophrenia demonstrate cognitive dysfunction and the abnormalities in resting state of brain glucose metabolism. In order to determine whether the regional brain metabolism predicts the performance in neuropsychological tests we assessed patients (N=38) with schizophrenia with 18FDG positron emission tomography (PET) and neuropsychological tests. Regional brain

metabolism was measured in the resting state and was tested for correlation with performance in neuropsychological tests and domains of psychopathology.

Total PANSS score negatively correlates with decrease of metabolism in insular regions, left caudatum and left dorsal temporal region. Positive symptoms are associated with the decrease of metabolism in basal ganglia and temporo-parietal cortex. Negative symptoms are mostly associated with the decrease of prefrontal and caudate metabolism. We found the association between the outcome in WCST and metabolism in dorsal prefrontal cortex, verbal fluency and prefrontal and fronto-temporal cortex and trail making test and frontal and dorsal angular region.

Results are presented and discussed in the framework of a neuronal basis for cognitive dysfunction in schizophrenia.

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### S59.3

Neuropsychological dysfunctions in the families of schizophrenic patients

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Abnormalities of information processing in schizophrenic patients are reflected in the results of neuropsychological tests measuring cognitive processes. Furthermore, these abnormalities have been reported to exist in a proportion of apparently healthy relatives of schizophrenic patients. The aim of this study was to compare the results of neuropsychological tests, measuring mainly the frontal lobe function in first-episode 21 schizophrenic patients, in both their parents (20 mothers and 20 fathers) and in 20 parent-matched healthy controls. Neuropsychological tests comprised the Trail Making Test (TMT), the Stroop color-word interference test, and the Wisconsin Card Sorting Test (WCST). There was a significant difference between the 21 patients and their healthy parents in the results of TMT and WCST but not in the Stroop test. On the other hand, a significant difference between parents and their matched controls was found in the Stroop B, and in two indices of the WCST (completed categories, CC and percentage of conceptual level responses, %CONC). A correlation was obtained between patients and their fathers in two indices of WCST (CC and %CONC), but not between patients and their mothers. The results obtained confirm those of other studies pointing to the presence of a significant impairment on neuropsychological tests in first-degree nonpsychotic relatives (parents) of schizophrenic patients, which may be used as an endophenotypic markers of genetic predisposition to schizophrenia.

### S59.4

Computer-assisted rehabilitation of cognitive functions in schizophrenia

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Computers have become a part of rehabilitation of cognitive functions in schizophrenia. Computerized training programs are used to improve performance in hospitalized patients and serve as a sensitive measure of recovery. The paper discusses options of computer rehabilitation in a general psychiatric population with special focus on schizophrenia. We review the published studies on ecological validity and efficacy of computer-assisted rehabilitation.

In our center, a computer classroom for patients with schizophrenia has been established. We propose a methodological research design for measurement of computer rehabilitation efficacy and its impact on functioning in home setting. Assessment of ecological validity of rehabilitation according to the following measures has been suggested: (1) tests of the rehabilitated cognitive functions; (2) tests of other cognitive functions than those rehabilitated; (3) subjective functioning in patient's home setting; (4) relatives' evaluation. We summarize our experience with "Train the Brain" program and Bracy's "COGREHAB" program, based on case reports.

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## SES15. AEP Section Alcoholism and Drug Addiction – Nicotine dependence and its treatment – Part II

*Chairs:* I. Berlin (F), Y. Lecrubier (F)

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### SES15.1

Cognitive-behavioral therapy to promote smoking cessation

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Various types of cognitive-behavioural interventions have been shown to consistently increase tobacco abstinence rates (1,2): providing social support as part of the treatment, helping smokers obtain social support outside of treatment, and providing smokers with practical counselling (problem solving skills and skills training). The efficacy of aversive smoking is debated (1, 3).

Supportive interventions can be directly provided by the clinician (enhance self-efficacy, encourage the client, communicate caring and concern), and clients can be trained to seek support by significant others (announce smoking cessation intention, identify supportive others, request support, arrange reduction of exposition to others smoking).

Practical counseling elements are to identify high risk situations (negative affect, being around other smokers, drinking alcohol, experiencing urges, being under time pressure), develop coping skills (learning to anticipate and avoid temptation, learning cognitive strategies that will reduce negative moods, accomplishing lifestyle changes that reduce stress, improve quality of life, or produce pleasure, learning cognitive and behavioral activities to cope with smoking urges), and provide basic information about smoking and successful quitting.

Meta-analysis has shown a strong dose-response relation between individual intervention and outcome (1). Clinicians should strive to meet at least four times with clients. However, exceeding 300 minutes of contact time do not seem superior to 91 – 300 minutes.

- (1) Fiore MC, Bailey WC, Cohen SJ, et al Treating tobacco use and dependence. Clinical Practice Guideline. Rockville, MD: US Department of Health and Human Services. Public Health Service. June 2000.
- (2) Lancaster T, Stead LF. Individual behavioural counseling for smoking cessation (Cochrane Review). In: The cochrane library, 4, 2001.
- (3) Hajek P, Stead LF. Aversive smoking for smoking cessation (Cochrane Review). In: The cochrane library, 4, 2001.

### SES15.2

Health hazards by smokeless tobacco use

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In Sweden, the use of oral snuff is widespread, especially among men. No increased oral cancer risk by the use of Swedish moist snuff, has been found in recent epidemiological studies.

However, its high content of nicotine, and a mean continuous usage time of 13–15 hours per day, has shown a higher total intake of nicotine and a higher addictive potential than cigarette smoking.

Nicotine has a lot of complicated and contradictory effects on neurological function, vascular tone, cardiac control, autonomic homeostasis and metabolism. An increased cardiovascular risk, as myocardial infarction, stroke, and hypertension as well as type 11 diabetes has been found. Nicotine also has a wide range of effects on the human brain and on cognitive performance, and could interfere with neuropsychiatric manifestations like anxiety disorders, major depression, and drug dependence. It also affects the foetus during pregnancy.

### SES15.3

A community reinforcement approach for smoking cessation

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In Trieste, a city of 240,000 inhabitants, exists an extensive community network dealing with the prevention and treatment of the diseases present in the area. Courses for smoking cessation have been traditionally offered by non-profit voluntary and religious organizations. Since 1996, all the activities in the nicotine dependence area have been coordinated by a Center linking initiatives implemented in the general population, schools, work settings, health professional offices, hospitals, and religious denominations.

In this preliminary study data have been collected from 117 smokers (63 m and 54 f) who, in 1966, entered smoking cessation courses lasting 3 months (without the use of drugs). Treatment outcome was evaluated 2 years later. At inclusion data were collected about family, physical dependence, and motivation; after 2 years subjects were re-interviewed. Subjects were 45.5±12.8 years old, smoking 26.7±11.9 years. Most subjects (72%) had a smoking parent and half (52%) were living with a smoking family member. Two thirds (67%) did previously try to quit smoking, but 86% of them did not include family members in treatment. Physical dependence, measured by the test of Fagerström, was 6.3±1.4. Different reasons for smoking were reported: recreational (73%) in males and anti-anxiety (81%) in females.

After 1 year, 20.5% of subjects were not smoking, dropping to 13.6% after 2 years. Among subjects abstaining during courses, 37.5% were not smoking after 1 year and 25% after 2 years. Subjects with positive and negative outcome were found to have no differences in age, years of smoking and physical dependence. The only differences were motivational since unsuccessful smokers reported more excitement and sedation after nicotine use.

Family habits and reasons for relapse hinted more toward a psychological and behavioral dependence. It was decided to create a community supporting system lasting 2 years including family members.