symptom reduction there is still poor functional recovery following a first psychotic episode: about the same percentage fail to demonstrate former social and occupational functioning or quality of life within 6 months after starting pharmacological treatment despite symptom recovery. These functional impairments are present up to 5 years after illness onset even when optimal pharmacological treatment is provided. Different studies point out that deficits in neurocognition (e.g. attention, memory, executive functioning) and social cognition (e.g. emotion and social perception, insight, social schema, attributional style) might be a main source for explaining this poor functional outcome.

Against this background our research group in Bern has developed therapy programs focussing especially on neuro- and social cognition. Integrated Psychological Therapy (IPT) was tested in 32 controlled studies in different countries with a total sample of 1420 patients. A further development of IPT is the Integrated Neurocognitive Therapy (INT) that is evaluated in a still ongoing multi-centre study. Data of a metanalysis of IPT and first results with 28 patients of the INT study indicate beneficial improvements in neuro- and social cognition, self-efficacy and self-perceived quality of life. These results confirm the importance of psychological therapies in combination with pharmacological treatment to optimize functional outcome and recovery.

W03. Workshop: UPDATE ON LESBIAN, GAY, BISEXUAL AND TRANSGENDER (LGBT) MENTAL HEALTH

W03

Update on lesbian, gay, bisexual and transgender (LGBT) mental health

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This workshop will focus on diagnostic and clinical issues in the treatment of Lesbian, Gay, Bisexual, and Transgender (LGBT) patients. Dr. Carrion, a Puerto Rican will speak on the role of coping, social support, temperament and subjective stress on posttraumatic symptoms, using ''Coming-Out'' or integration of a LGBT sexual orientation. He will discuss findings from a cohort of children who have experienced interpersonal violence and develop posttraumatic symptoms. Temperament will be discussed as a potential mediator and coping style as a moderator of posttraumatic symptoms. Dr. Garza, a Mexican American will describe concepts of gender identity and gender roles, and what role psychiatry has played in this area and how it may become a source of support for individuals struggling with gender dysphoria. Dr. Navarro-Barrios from Granada, Spain will speak about transcultural psychiatry and immigrant gay men. Transcultural psychiatry emphasizes the relation that exists between the culture of the subject, and the different presentation of the mental pathology. He will emphasizes the application of transcultural model in therapy with the immigrant gay subjects. Dr. Nakajima, a Japanese American will discuss problematic diagnoses related to homosexuality in ICD-10 like ego dystonic sexual orientation, and the drive to eliminate these diagnoses in ICD-11.

S08. Symposium: NEUROCOGNITIVE IMPAIRMENT IN SCHIZOPHRENIA: A NEW TARGET FOR TREATMENT

S08.01

Treatment of cognition and affect in schizophrenia

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Background and Aims: An increasing number of treatment studies focus on impaired cognition and emotion processing in schizophrenia. In study 1 we evaluated neuronal activation with fMRI during facial emotion processing in schizophrenia patients treated with new antipsychotics. The study 2 was carried out in order to evaluate whether combinations of new antipsychotics with a cognitive training (Cogpack) or a Training of Affect Decoding (TAD) were more effective than new antipsychotics alone.

Methods: In the first study patients with schizophrenia (n=11) and matched healthy controls (n=11) viewed facial displays of emotions. FMRI was used to measure BOLD signal changes as patients alternated beween tasks requiring discrimination of emotional valence of faces and age. In the second study schizophrenic patients (n=20) were compared with a randomized group of patients in the Cogpack (N=20) and in the TAD (n=20).

Results: The same activation patterns in the amygdala were apparent in schizophrenic patients treated with new antipsychotics and healthy controls. The cognition training group revealed significant improvements in cognitive functions and transfer effects in skills needed for daily life. In the TAD group significant improvements were found in recognition of sad facial emotions.

Conclusions: New antipsychotics may improve the functionality of the networks needed for emotion processing and cognition. Cogpack training and TAD, in combination with new antipsychotics, are important treatment techniques for improving social functioning relevant for rehabilitation.

S08.02

Social skills training and computerized cognitive training in patients with schizophrenia

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Cognitive impairment is increasingly regarded as a core aspect of schizophrenia. It is associated with poor functional outcome, may represent a rate limiting factor in rehabilitation programs and is not largely influenced by pharmacological interventions.

Several studies suggest the efficacy of cognitive training programs and advice their inclusion in treatment strategies, while others discourage clinical application.

We recently completed a study involving three Mental Health Departments located in the South of Italy and coordinated by the Department of Psychiatry of the University of Naples SUN. Fifty-eight patients with either a diagnosis of schizophrenia or schizoaffective

https://doi.org/10.1016/j.eurpsy.2007.01.055 Published online by Cambridge University Press

disorder were recruited and randomly allocated to one of two rehabilitation programs: Social Skill Training (SST) + Computerized Cognitive Training (CCT) (Group A) and usual rehabilitation activities of the Department (Group B). The active treatment phase lasted 6 months. Psychopathological aspects, as well as psychosocial and neurocognitive functioning, were assessed both before and after treatment. Group A subjects participated in two one-hour sessions of CCT and one two-hour session of SST. Group B patients spent an equivalent amount of time in the usual rehabilitation activities.

The two groups did not differ on baseline clinical, neurocognitive and psychosocial variables.

At the end of treatment, a worsening of the negative dimension was observed in group B, but not in group A, in which a significant improvement of two psychosocial indices (participation in family life and availability to work) was found.

The experimental program (SST+CCT) was more effective than usual rehabilitation activities of the departments.

S08.03

Improvement of prefrontal brain function in schizophrenia under atypical neuroleptic treatment

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Background and Aims: Various cognitive activation tasks in schizophrenic patients have demonstrated an altered function of the anterior cingulate cortex (ACC) interconnecting the prefrontal cortex with limbic areas. This prefrontal dysfunction is a main target of antipsychotic treatment, as it is considered to be involved in both negative symptoms and cognitive dysfunction.

Methods: Two- (NoGo-anteriorization; NGA) and three-dimensional topographical measures (source locations with the Low Resolution Electromagnetic Tomography; LORETA) of the event-related potentials elicited during the execution (Go) and the inhibition (NoGo) condition of the Continuous Performance Test allow an assessment of anterior cingulate function with extraordinary high inter-individual stability and retest reliability.

Results: These methods revealed a significant brain electrical hypoactivity in the ACC of schizophrenic patients as compared to age- and gender-matched controls. Both a neuropsychological index of ACC performance and the proposed electrophysiological measure of this region have been shown to be improved in patients treated with atypical but not with typical antipsychotics.

Conclusions: These results support the notion that a functional deficit of the ACC during response control is a core feature in schizophrenias, which can be improved by atypical antipsychotic treatment.

S09. Symposium: NEUROBIOLOGICAL FACTORS IN ANTISOCIAL DISORDERS: RESEARCH, CLINICAL AND ETHICAL IMPLICATIONS (Organised by the AEP Section on Forensic Psychiatry)

S09.01

Genetics and forensic psychiatric nosology

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Background: Research on genetic mechanisms involved in human behaviour stands before a huge discrepancy. One the one hand, twin research has shown that strong genetic effects are involved in creating individual differences in virtually all human behaviour patterns, including aggression. On the other hand, molecular genetic research has not been able to identify gene variants associated with such traits.

Aims: To review the current state of genetic research on aggression, psychopathy and criminality.

Method: Systematic literature searches for aggression, psychopathy, criminality, antisocial, conduct disorder and ADHD vs. gene/genetic, following both the epidemiological and the molecular strands.

Results: Genetic effects explain a considerable part the variance in aggression. No molecular genetic variant specifically involved in this causation has been identified, even if there are some promising findings.

Conclusion: Genes are important but the mechanisms involved are enigmatic and most certainly unspecific.

S09.02

Neurobiological markers in conduct disorder

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Aggressive behavior in mental disorders may occur in childhood in the context of conduct disorder or in adulthood as a leading feature of personality disorders. Those children, who meet the criteria for conduct disorder already in early life (''early starters'') tend to exhibit high levels of aggression throughout development and continuation of violence in adulthood. They exhibit autonomic underarousal and low autonomic responses which have been shown to be predictive of adult antisocial behavior and which have been suggested to act as biological mediators through which genetic influences operate on antisocial behavior. This predictor is stronger in boys without psychosocial disadvantages compared to those boys with unfavorable social backgrounds and may therefore particularly reflect the biology-antisocial behavior relationship. There are several lines of evidence that aggressive behavior at any age is closely related to an individual's capability to regulate emotions. Emotions of anger or fear trigger reactive, impulsive aggression whereas a failure to experience fear, empathy or guilt facilitates instrumental aggression. Brain structures significantly involved in affect regulation, such as the amygdala and hippocampus, have been found to be smaller in early-onset CD boys compared to healthy controls. In emotional challenge tasks these boys exhibited increased amygdalar hyperresponsiveness to emotional stimuli; this finding might reflect a time-limited mechanism of compensation for smaller amygdala volumina in the maturating brain. Data from neuroimaging and electrophysiology will be forwarded to clarify the neurobiological underpinnings of children with conduct disorders and their risk of being the fledging adult violent offenders.

S09.03

Neurobiological correlates of antisocial personality traits - research findings and treatment implications

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Background and Aims: There is increasing evidence for a neurobiological basis of antisocial personality disorder (ASPD),

https://doi.org/10.1016/j.eurpsy.2007.01.055 Published online by Cambridge University Press