

stability of the relationship. Thus, the identification of contributing and maintaining factors of sexual problems as well as designing effective interventions is a primary concern of clinical psychiatry. Academic and clinical training within the field of psychiatry, and psychology, prepares a professional to "listen" to verbal and nonverbal communications of patients. The therapist is trained to "see" repetitive patterns of behavior and to associate current and historical information, permitting a more dynamic understanding of sexual and interpersonal problems. These skills facilitate the diagnostic evaluation. While patients may seek a "quick" fix for sexual problems, clinical experience supports the hypothesis of the importance of psychosocial, affective, cognitive, interpersonal and cultural variables in maintaining or exacerbating problems regardless of etiology. These variables are often not amenable to a "quick fix." Historically, major shifts in how sexual problems have been viewed and treated, demonstrates how sexuality is shaped by social and cultural expectations, (e.g. 100 years ago a sexually enthusiastic woman would likely have been pathologized as a "nymphomaniac" and hospitalized for insanity). The renaming of sexual problems also relates to the shifting norms and biases of society (e.g. frigidity and inhibited sexual desire, have a different emphasis than the use of desire disorder; impotence is more negative than the current term erectile disorder). Today, as new and effective pharmaceutical agents increase treatment options for sexual disorders, therapists have the opportunity to develop new psychological interventions designed to incorporate and potentiate the drug therapies. This presentation will focus on the importance of differential diagnosis and careful sexual history prior to treating sexual problems. I will demonstrate how information derived from the assessment process is translated into efficient interventions. Another purpose of this presentation is to increase the therapists awareness and sensitivity to overt and covert messages communicated to the patient during the evaluation and treatment process.

### S20.04

#### BIOLOGICAL TREATMENTS OF PARAPHILIAS AND PREMATURE EJACULATION

R. Balon. *Wayne State University, Detroit, Michigan, USA*

Pharmacotherapy of sexual dysfunction and sexual disorders is experiencing a renaissance. Even disorders which have been traditionally treated with various psychological and behavioral therapies, such as premature ejaculation (PE), and paraphilias, have reportedly been treated successfully with Pharmacotherapy. Premature ejaculation is the most prevalent type of sexual dysfunction among males with estimates of prevalence up to 40%. It is defined as persistent or recurrent ejaculation with minimal sexual stimulation before, on, or shortly after penetration and before the person wishes. The pause maneuver, pause-squeeze technique, and stop-start method have been standard treatments for PE for a long time. However, lately serotonergic antidepressants have emerged as an effective treatment for PE. Recent studies have demonstrated the efficacy and safety of clomipramine, fluoxetine, paroxetine, and sertraline in the treatment of PE. SSRI's seem to be the logical treatment of choice in cases of failed psychological treatment, when psychological treatments rejected, or the partner is unwilling to cooperate. The essential features of paraphilias are recurrent, intense sexually arousing fantasies and urges. Paraphilias have been described as impulse disorders, obsessive compulsive spectrum disorders, or affective spectrum disorders. Various hormones, antipsychotic drugs, lithium, buspirone and SSRI's, namely fluoxetine, have reportedly been successful in the treatment of paraphilias. This presentation will review the efficacy, management strategies, and advantages and disadvantages in the treatment of premature ejaculation with SSRIs,

as well as in the treatment of paraphilias with various psychotropic drugs and hormones.

### S20.05

#### TREATMENT OF SEXUAL DYSFUNCTION ASSOCIATED WITH MEDICATION

Z. Zemishlany. *Geha Mental Health Center, Petah Tikva, Tel Aviv University, Israel*

Many commonly prescribed psychiatric medications are associated with sexual dysfunction. Antipsychotics affect sexual function, probably via dopamine D<sub>2</sub> receptor blockade and/or hyperprolactinemia. Antipsychotic treatment interferes with desire, arousal (erection) and satisfaction. The prevalence of sexual dysfunction in treated schizophrenics is 30–60%. Even novel atypical antipsychotics seem to cause sexual dysfunction. Attempts to treat the sexual dysfunction using dopaminergic drugs were disappointing. The addition of L-dopa may increase psychotic states. Apomorphine causes severe nausea and is not sufficiently effective, and the addition of 100 mg/day amantadine caused some improvement but was not clinically satisfactory. L-deprenyl, 15 mg/day, had no effect on sexual dysfunction. Viagra (sildenafil citrate), which acts locally on the penis, may be a new and promising treatment and the results for the first few patients are encouraging. Antidepressant drugs, including SSRIs, also affect sexual function; estimates vary from a small percentage to 96%. The most common sexual side effects are delayed ejaculation and anorgasmia; center dot desire and arousal are also often affected. The hypothesized mechanisms of action are increased serotonergic activity at the 5-HT<sub>2</sub> receptor, anticholinergic effects and inhibition of NO synthetase. A variety of strategies have been used in the management of SSRI-induced sexual dysfunction: waiting for tolerance to develop, dosage reduction, drug holidays, substitution with another drug, and augmentation strategies. Substitute antidepressants are bupropion, nefazodone and mirtazapine. Adjustive agents are 5HT<sub>2</sub> antagonists (cyproteradine, mianserin, mirtazapine), dopamine receptor agonists (psychostimulants, bupropion) and Viagra. Benzodiazepines and lithium are also not devoid of sexual side effects. Impairment in sexual function and quality of life may lead to noncompliance and relapse. Therefore, new strategies to overcome these adverse effects are of great importance.

---

## S21. Neurocognitive dysfunctions in subjects with psychotic disorders: methodological issues and clinical relevance

*Chairs:* S. Galderisi (I), J. Gruzelier (UK)

---

### S21.01

COGNITIVE REHABILITATION IN PSYCHIATRIC PATIENTS  
H.D. Brenner. *Sozial und Gemeinde Psychiatrie, Universitäre Psychiatrische Dienste Bern, 49 Laupenstrasse, CH-3000 Bern 10, Switzerland*

Cognitive abnormalities in schizophrenia appear early in the course of the illness and seem to be enduring characteristics. They include deficits in attention, learning, memory and executive function. Studies of high-risk, first degree relatives of patients with schizophrenia provided evidence, that mild cognitive dysfunction may

be a vulnerability factor in schizophrenia. Taking these findings together cognitive impairments are increasingly seen as potential targets for pharmacological and psychosocial treatment and rehabilitation. This gains especially importance since recent studies have shown, that cognitive deficits are a major factor in impaired social and work function. In this contribution several key issues for cognitive rehabilitation in psychotic patients are discussed and different intervention approaches are outlined and reviewed with regard to their efficacy and effectiveness. Open questions concern issues of generalisation, transfer and maintenance, their integration with more comprehensive psychosocial rehabilitation programmes and their optimal combination with atypical neuroleptics.

### S21.02

#### COGNITIVE DYSFUNCTIONS IN PSYCHOTIC PATIENTS: RELATIONSHIP WITH SYMPTOMS AND ANTIPSYCHOTIC TREATMENT

S. Galderisi\*, A. Mucci, M. Maj. *Department of Psychiatry, University of Naples SUN, 1 Largo Madonna delle Grazie, 80138 Naples, Italy*

Cognitive dysfunctions in psychotic patients are associated with poor social functioning and outcome. They have received increasing attention as limiting factors in rehabilitation and psychotherapeutic programs.

An interdependence among cognitive dysfunctions, psychopathology and social disability has been hypothesized by many authors; however, empirical findings have been reported supporting the alternative view that they represent separate dimensions of impairment. As a matter of fact improvement in psychopathology induced by pharmacological treatment is not always paralleled by a favorable modification of cognitive and social functioning.

These latter domains have been targeted by treatment with novel antipsychotics. Most of the studies assessing the impact of these drugs on cognition in comparison with standard neuroleptics support the view that they are superior in improving cognitive functioning. It has been hypothesized that this superiority is related to a lower frequency of extrapyramidal side effects and to the presence of a practice-related learning effect, not found for standard neuroleptics.

We investigated the effects of treatment with novel antipsychotics or low doses of standard neuroleptics on several cognitive domains, including attention/short-term memory, executive functions and learning of recurring sequences. According to our findings, both treatments improved attention and some aspects of executive functioning, in the absence of any detrimental effect on learning.

### S21.03

#### HEMISPHERIC ASYMMETRIES AND PSYCHOTISM

J. Gruzelier

No abstract was available at the time of printing.

### S21.04

#### A NEUROPHYSIOLOGICAL FRAMEWORK FOR PSYCHOSIS

M. Koukkou. *University Hospital of Clinical Psychiatry, University of Bern, 111 Bolligenstr., CH-3000 Bern, Switzerland*

There is no generally accepted etiological model of the pathogenesis of productive psychotic symptoms. We explored the presently discussed neurodevelopmental model, comparing EEG data from

normal juveniles at three ages with EEG data of medication-naïve, young, first-episode schizophrenic patients.

Basic assumptions are: 1) developmental EEG changes reflect the level of attained complexity of cortico-cortical connectivity, of neuronal networks, and, at each moment, their momentary accessibility; 2) neurodevelopmental abnormalities, i.e., acquired deviations in organisation and reorganisation of cortico-cortical connectivity during development, might become reactivated by a multiplicity of factors in later life. In our study, the schizophrenics showed lower delta-theta EEG centroids, and higher alpha and beta EEG centroids, suggesting a functional dissociation, and partial similarities in EEG delta-theta and beta reactivity with the 11-year olds, and in EEG alpha reactivity with the 13-year olds. Within the framework of the model, our results suggest multifactorially elicited imbalances in the level of excitability of neuronal networks in schizophrenia, resulting in network activation at dissociated complexity levels, partially regressed and partially prematurely developed. It is suggested that age- and/or state-inadequate representations for coping with realities become activated, and thus become manifest as productive schizophrenic symptoms. This constitutes partial support for the neurodevelopmental hypothesis.

---

## W03. Euro PoP 3rd Meeting: Education and training in Psychiatry Europe (undergraduate teaching and training)

*Chairs:* A.H. Ghodse (UK), C. Höschl (CZ)

---

### W03.01

#### PROBLEMS OF THE UNDERGRADUATE TRAINING IN PSYCHIATRY IN THE CZECH REPUBLIC

J. Libiger, I. Tuma. *Charles University in Prague, Dept. of Psychiatry at the Medical School in Hradec Králové, Czechia*

The major objectives of undergraduate education in psychiatry are to impart knowledge, to educate attitudes and to train skills. The balance among these three goals is a matter of discussion and often also controversy. The undergraduate programmes at particular medical schools depend in a substantial part on tradition of the department and experience of the faculty.

This paper will present the outline of the Programme in psychiatry for medical students at one of 7 Czech Medical Schools as a model which will reveal the strong and weak points in the current standard system.

Psychiatry is taught in a course that spans two terms: the summer term in the 4-th year of the Medical School (8th term) and the winter term in the 5th year (9th term) of the curriculum. In both terms a total of 99 hours are available. They include 16 hours of formal lectures, and the rest is allotted for practical training and seminars. The formal lecture are supposed to cover the whole area of clinical psychiatry and include a thorough instruction in "general" and "special" psychiatric topics: psychopathology, methods of diagnostics and treatment, major ICD 10 diagnostic groups and individual categories. The lectures are presented for the whole class. Practical training is organized in 7 or 10 distributed blocks, that last 4 hours. Students work with patients at wards of the Psychiatric Clinic (60 beds) in groups of 4–8 persons.

The strength of this program may be the focus on a careful evaluation of psychopathology and a comparatively thorough discussion of patients during practical training. The weakness is its knowledge-centered quality, with fluctuating and sometimes