There exists indirect methods of training. One example is the social skills training methods developed by Robert Liberman.

A different trend is the essays to train cognitive functions by more direct methods. This includes the training of central coherence and social recognition as in the "Integrated Psychological Therapy" and training executive functions in "Cognitive Remidiation". The international research is rewieved and recent Swedish experiences are presented.

S42.3
Work rehabilitation

K.T. Mueser. *USA*

No abstract was available at the time of printing.

S42.4
Interventions for tomorrow

I.-M. Wieselgren. *Uppsala University Hospital, Sweden*

The most important question is the patient's ability to function in the real world. The overall goal is o be able to participate independently in the community. Even at first admission in early schizophrenia, an important part of the patients have an impaired function. It means that interventions had to start at once and run parallel to treatment.

Rehabilitation includes interventions to help a person reduce the functional impairment and adjustment of the environmental together with support. Supported Employment is effective in helping severely mentally ill people to obtain competitive employment.

Social stigma has a significant impact on the quality of life of persons with schizophrenia. Direct interaction with persons who have severe mental illness is the best strategy for changing stigmatizing attitudes. Successful integration in the community is important for many reasons.

Coping strategies to manage their illness and disabilities, social skills training are other possibilities.

Aids for people with psychiatric disabilities for example cognitive impairment, adjustment of place of work, computer/electronic support and other assistive technology are new areas in psychiatric rehabilitation.

PL02. Plenary Nobel Laureate Lecture: The neurobiology of dopamine signaling

PL02
The neurobiology of dopamine signaling

P. Greengard*. *Rockefeller University, Laboratory of Molecular and Cellular Science, New York, USA*

Nerve cells communicate with each other through two mechanisms, referred to as fast and slow synaptic transmission. Fast-acting neurotransmitters, e.g., glutamate (excitatory) and GABA (inhibitory), achieve effects on their target cells within one millisecond, by virtue of opening ligand-operated ion channels. In contrast, all of the effects of the biogenic amine and peptide neurotransmitters, as well as many of the effects of glutamate and GABA, are achieved over hundreds of milliseconds to minutes, by slow synaptic transmission. This latter process is mediated through an enormously more complicated sequence of biochemical steps, involving second messengers, protein kinases, and protein phosphatases. Slow-acting neurotransmitters control the efficacy of fast synaptic transmission, both by regulating the efficiency of neurotransmitter release from presynaptic terminals and by regulating the efficiency with which fast-acting neurotransmitters produce their effects on postsynaptic receptors.

LS03. Schizophrenia: a journey from first episode to long-term stability (Sponsored by Janssen Cilag)

Chair: A. David (GB)

LS03.1
First episode schizophrenia: a targeted treatment approach

L. Kopala*. *University in Halifax, Nova Scotia, Canada*

Optimising treatment of a first episode of psychosis sets the stage to influence long-term management of illness. The primary aim of treatment is to achieve rapid remission of the acute psychotic episode using the most effective and best-tolerated treatment. The morbidity and mortality of schizophrenia can be diminished for patients treated early and consistently with second generation antipsychotics such as risperidone. It is widely recognised that recovery is related to the number and severity of relapses and thus success in the initial treatment phase influences the long-term course. Risperidone is a rapid, effective and well-tolerated medication, which can be safely used in the treatment of a first episode of psychosis. Current data indicate that one-year of consistent treatment with oral risperidone or one of the other newer atypicals results in a reduction in rehospitalisations as low as 8% compared with previously reported annual rates of 50%. There was a reduced suicide rate for the population studied. In addition to this, negligible levels of neurotoxicity, in the form of EPS, were observed along with a reduction in pre-existing baseline motor abnormalities.

In summary, early intervention in an acute or chronic first episode of psychosis with a second generation antipsychotic such as risperidone, can provide effective control of symptoms, limit neurotoxicity and reduce the incidence of non-adherence. Importantly, mortality and morbidity can be diminished.

LS03.2
Chronic symptoms of schizophrenia: improving the outlook

J. van Os. *University of Maastricht, The Netherlands*

In a substantial proportion of individuals with psychotic illness, a cascade of events starting with non-clinical psychotic experiences may develop into chronic psychosis over many years. The majority of individuals with non-clinical psychotic experiences in the general population will not develop a psychotic disorder. However, a smaller but increasing number of individuals will experience progressively more severe psychotic states, culminating in the first psychotic episode. This is known as the *psychosis toxicity hypothesis*. A large longitudinal survey has demonstrated that non-clinical psychotic experiences in the general population have the potential to become more 'toxic' with increasing length of exposure and do have a negative impact on clinical outcome. The possibility that psychotic experience itself has adverse prognostic

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