cascade of interactions among environment, brain and behaviour initiated by trauma. The preventive activites are needed, on all three levels of prevention. These activities are part of the Refugee Mental Health Assistance Programme which covers three levels (education, research and treatment), undertaken by the Institute for Mental Health's network of professional teams in Yugoslavia. This Programme, lasting for seven years, plays an important role in reducing the negative long-term consequences of extreme trauma.

### S23-5

## HELP SEEKING AND POSTTRAUMATIC STRESS DISORDER SYMPTOMS IN SURVIVORS OF TORTURE

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Research over the last decades has demonstrated that torture is often followed by multiple symptoms in most or all survivors. Though posttraumatic stress disorder (PTSD) appears to be the most common diagnostical entity, its relative importance for the patient has been frequently questioned.

To ascertain the reason of help seeking in a series of 22 survivors of torture, practical and medical reasons for help seeking and referral, that had been recorded as part of the diagnostic interview, together with symptoms of the DSM-III R list of symptoms of PTSD were compared with patients subjective ratings of the relative importance of somatic and psychological symptoms. Patients had been asked for the two most subjectively stressing or inhibiting symptoms, present at the time of evaluation.

All but one patients fulfilled DSM III R criteria for PTSD, with symptoms from all clusters of DSM-III R being present in all patients. The most important distressfull symptoms listed were disturbed sleep (n = 19), nightmares (n = 15), and impaired concentration (n = 14). Treatment for this symptoms though, was not seen as central to contacting the hospital in a large subgroup (n = 13) of patients, with a broader range of reasons given. No patient had been diagnosed as suffering from PTSD before. The high frequency of a clinical diagnosis of other DSM-IIIR disorders in the majority of patients gave rise to a later change in evaluation strategies.

# S24. ADHD and related syndromes

Chairs: MH Schmidt (D), E Taylor (UK)

# S24-1

WHICH SUBGROUPS OF ADHD ARE CLINICALLY RELE-VANT?

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ADHD is defined simply by the presence of persistently and pervasively inattentive and/or overactive behaviour. The problems are usually regarded as heterogeneous, but more research is needed about how they should be classified. This paper reviews some proposed subgroups.

Hyperkinetic Disorder: is a subgroup of AD/HD characterised by mixed inattentive and impulsive symptoms, high severity and pervasiveness, early onset and the absence of comorbid problems. The category is validated by high rates of biological abnormalities and is a particularly strong indication for stimulant medication. Attention Deficit Without Hyperactivity: Attention deficit is separable from overactivity/impulsivity. The psychiatric risk resides in the overactivity/impulsivity component; while those with attention deficit appear to be at risk for educational failure. They are separate developmental tracks, linked by overlapping causes.

Situation-Specific Hyperactivity: Hyperactivity seen only in the home setting has a similar pattern of predictive associations to "oppositional disorder". Hyperactive behaviour that is specific to the school setting tends to have a late onset and an association with specific learning disorders.

Hyperkinetic Conduct Disorder: When the two occur together, conduct disorder seems to be a complication of hyperactive behaviour, not a comorbid disorder; and those with both problems have the associations of both.

**Comorbid Emotional Disorders:** The presence of anxiety symptoms in those with ADHD predicts failure of the ADHD symptoms to respond to a stimulant. The mixed pattern is a distinct developmental pathway in which the anxiety can be primary.

Comorbid Learning Difficulties: Academic problems and hyperactivity behave as separate developmental tracks; each predicts itself over time but not the other.

The goals and methods of treatment differ in these subgroups of ADHD.

### S24-2

DOPAMINE D4 RECEPTOR GENE POLYMORPHISM IN CHIL-DREN WITH ATTENTION DEFICIT HYPERACTIVITY DIS-ORDER (ADHD) — A BIOLOGICAL MARKER?

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The concordance rate for ADHD in monozygotic twins is about 80% compared to about 30% for same sex dizygotic twins. Thus, one hypothesis asserts that the symptoms of ADHD are related to hypodopaminergic function, as drugs like methylphenidate, that increase synaptic dopamine (DA) lessen the syptoms. The dopamine D4 receptor gene (DRD4), encoding one of five known protein receptors that mediate the postsynaptic actions of DA, display a very high degree of variation in the human population. The main source of this variability is a 48-bp region that can be repeated two to eleven times. It has been reported that in ADHD the D<sub>4.7</sub> variant occurs more frequently than the D<sub>4.4</sub> variant. The D<sub>4.7</sub> variant is associated with excitability and impulsiveness. In this study, we examine the DRD4 gene polymorphism in a well-characterized sample of children with ADHD in comparison to children with other psychiatric disorders and normal controls.

### S24-3

CEREBELLUM IN ATTENTION DEFICIT/HYPERACTIVITY DISORDER: AN MRI MORPHOMETRIC STUDY

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Attention Deficit/Hyperactity Disorder (ADHD) is the most common behavioral diagnosis in childhood. According to the DSM-IV, it may be diagnosable as 3 subtypes in which inattention and hyperkinesia/impulsivity are predominant or combined. Until now neuroimaging studies have focused on the prefrontal cortex and basal ganglia while neuropsychological studies suggest that impairement in central executive function is the core deficit. These