During the last 15 years we have seen a dramatic increase in the administration of effective drug treatment for anxiety disorders and major depression due to the introduction of SSRIs. Lately psychological treatments has been shown to be similarly effective in these conditions. Thus evidence from repeated randomized clinical trials (RCT) shows that CBT is an evenly effective alternative to SSRIs for major depression and anxiety disorders. However, due to limited availability of skilled CBT therapists we have an effective alternative to drug treatment out of reach for most patients regardless of preferences.

Fortunately, CBT provided in self-help-based approaches seems to be effective for e.g. depression, panic disorder, phobias, depression, eating disorders, PTSD and social phobia. A significant number of patients may however find it difficult to complete the treatment on their own. Thus Internet treatment with CBT in self-help format accompanied with minimal therapist contact by email seems to be a cost effective procedure to provide effective treatment to an increasing number of patients. This approach may to some extent overcome the limitation in therapist number and increase treatment accessibility. Patients may still enjoy the benefit of an individual therapist contact and thus improve the number of treatment program completers. Results from RCTs with Internet treatment in clinical settings with patients referred from general practitioners will be provided. Moreover, issues of patient selection/recruitment, web-technology and treatment limitations and clinical impressions of treating patients in this way will be discussed.

## S39.03

Psychotherapy on the internet: How does it work concretely?

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Today, internet-based technologies are used in all phases of psychosocial services. Current psychotherapeutic applications focus on the implementation of traditional approaches in the Internet. For instance, self-help material is posted onto the net, therapies are conducted via email, and groups meet in virtual chatrooms. However, recent advancements in web-based technologies are providing even greater opportunities for psychotherapy on the Internet. Today, many different aspects of psychotherapy on the Internet can be provided on a single integrated Web platform.

Recently, we have created an Internet platform that offers various aspects of a cognitive behavioral approach to social phobia. This includes an interactive self-help guide, contact with therapists, a continuous monitoring and feedback of patient response, as well as collaborative elements, offering patients the opportunity to share their experiences with other patients. The aim of this presentation is to provide insight into the concrete application of such a platform. Experiences, pitfalls and opportunities are discussed along with the primary results of a controlled study.

# S41. Symposium: GENES, ENDOPHENOTYPES AND TREATMENT OF ADULT ADHD

### S41.01

Association of response to methylphenidate in adults with ADHD with a polymorphism in SLC6A3 (DAT1)

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**Background:** During this presentation, the first pharmacogenetic study on response to methylphenidate (MPH) in adults with ADHD will be reported.

**Methods:** We performed a stratified analysis of the association between response to MPH, assessed under double-blind conditions, in 42 adults with ADHD, and polymorphisms in the genes encoding the dopamine transporter, SLC6A3 (DAT1), the norepinephrine transporter, SLC6A2 (NET), and the dopamine receptor D4, DRD4.

**Results:** Polymorphisms in the DRD4 and the SLC6A2 (NET) genes were not significantly associated with the response to MPH treatment; however, the VNTR polymorphism in the 3'untranslated region of SLC6A3 (DAT1) was significantly associated with an increased likelihood of a response to MPH treatment (odds ratio 5.4; 95% CI 1.4-21.9) in heterozygous 10-repeat allele carriers in comparison with the 10/10 homozygotes: 52.2% of the participants heterozygous for the 10-repeat allele improved significantly on MPH treatment whereas only 22.2% of the 10/10 homozygous individuals did

**Conclusions:** This study confirms that the SLC6A3 (DAT1) genotype may have an influential role in determining the response to MPH in the treatment of ADHD. The SLC6A3 (DAT1) gene might be a factor worth evaluating further in the future regarding choice of treatment and possibly dose adjustment.

## S41.02

Attention-deficit/hyperactivity disorder endophenotypes - an overview

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Attention-deficit/hyperactivity disorder (ADHD) is a clinically heterogeneous, highly heritable and genetically complex disorder. The pathways from genes to behaviour are still unknown. Endophenotypes, or intermediate phenotypes that are more closely linked to the neurobiological substrate than the core symptoms of ADHD, may help to disentangle these complex relationships between genes and behaviour and to clarify its etiology and pathophysiology. Heritability and stability represent key components of any useful endophenotype. Various other criteria for the selection of useful endophenotypes have been proposed. A review of the current state of the research on potential endophenotypes for ADHD will be given.

#### S41.03

Genes and neurocognitive performance: are the two related in adult

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