

## STUDIEN LICHTTHERAPIE ADHD

Abstracts

### **Seasonality and Circadian Preference in Adult Attention-Deficit/Hyperactivity Disorder: Clinical and Neuropsychological Correlates.**

Compr Psychiatry 2007;48(6):562-71.

**Rybak YE, McNeely HE, Mackenzie BE, Jain UR, Levitan RD.**

**OBJECTIVE:** The objective of the study was to measure both seasonal mood change and circadian preference, and their clinical and neuropsychological correlates, in adults with ADHD during the fall/winter months. **METHOD:** Twenty-nine adults with attention-deficit/hyperactivity disorder (ADHD) were assessed in the fall/winter season using self-report measures of ADHD, mood, seasonality, and circadian preference. Neuropsychological tests were also completed. Correlations between chronobiologic variables and clinical/neuropsychological measures were performed. **RESULTS:** Consistent with prior work in adult ADHD, high rates of seasonal depression were reported in this sample. Based on the morningness-eveningness questionnaire, which assesses circadian preference 11 (40.7%, N = 27) subjects were designated as evening types and only 5 (18.5%) as morning types, a distribution highly discrepant with general population studies. Later circadian preference, independent of seasonality, was strongly correlated with both self-reported symptoms of ADHD and neuropsychological deficits, including impulsive responding and poor target discrimination. None of these findings was attributable to state depression. **CONCLUSIONS:** In the fall/winter period, a mood-independent delay in circadian phase may contribute significantly to core pathology in many adults with ADHD. These findings establish a potential target for chronobiologic treatments such as light therapy in this complex population.

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### **An Open Trial of Light Therapy in Adult Attention-Deficit/Hyperactivity Disorder.**

J Clin Psychiatry 2006;67(10):1527-35.

**Rybak YE, McNeely HE, Mackenzie BE, Jain UR, Levitan RD.**

**OBJECTIVE:** In adults with attention-deficit/ hyperactivity disorder (ADHD), a delayed sleep/ activity rhythm and/or seasonal mood symptoms may contribute significantly to core pathology and disability. This study examined whether a chronobiologically based treatment, i.e., morning bright light therapy (LT), might have utility as an adjunctive treatment for adult ADHD in the fall/ winter period. **METHOD:** Twenty-nine adults with DSM-IV ADHD were administered a standard 3-week open trial of LT during the fall or winter months. Primary outcome measures included percentage reduction on the Brown Adult ADD Scale and the Conners' Adult ADHD Scale. Secondary measures were decrease in depression scores according to the Structured Interview Guide for the Hamilton Depression Rating Scale, Seasonal Affective Disorder version; improvements on various neuropsychological tests; and shift toward an earlier circadian preference as measured by the Horne-Ostberg Morningness-Eveningness questionnaire. Regression analyses determined which variables at baseline best predicted improvement on a given outcome measure and which variables changed in parallel with one another. The study was conducted from November 2003 through February 2004. **RESULTS:** Morning bright light therapy was associated with a significant decrease in both subjective and objective measures of core ADHD pathology, improved mood symptoms, and a significant phase advance in circadian preference. Multiple regression showed that the shift toward an earlier circadian preference with LT was the strongest predictor of improvement on both subjective and objective ADHD measures. Neither baseline global seasonality scores nor baseline depression scores strongly predicted LT effects on most measures of ADHD. **CONCLUSION:** These findings suggest that during the fall/winter period, LT may be a useful adjunct in many adults with

ADHD. Strikingly, the strongest correlate of improvement in core ADHD pathology was a phase advance in circadian preference rather than alleviation of comorbid seasonal affective disorder, suggesting important clinical benefits of LT beyond the treatment of seasonal affective disorder.

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### **Seasonality of Mood Disorders in Adults With Lifetime Attention-Deficit/Hyperactivity Disorder (ADHD).**

J Affect Disord 2006 Apr;91(2-3):251-5.

**Amons PJ, Kooij JJ, Haffmans PM, Hoffman TO, Hoencamp E.**

**BACKGROUND:** The objective of this study was to estimate the prevalence of Seasonal Affective Disorder (SAD) in adults with lifetime Attention-Deficit/Hyperactivity Disorder (ADHD). **METHOD:** Patients eligible for this study had lifetime impairing symptoms of ADHD and a current and/or past comorbid mood disorder according to their medical record. The Seasonal Pattern Assessment Questionnaire (SPAQ) was administered by a telephone interview to assess seasonality. **RESULTS:** The overall rate of SAD in this clinical population of adults with ADHD was estimated at 27%. Females were more at risk to develop SAD than men. **LIMITATIONS:** The SPAQ is a screening, not a diagnostic instrument. **CONCLUSIONS:** SAD symptoms are frequently comorbid with ADHD in adults. These results have clinical relevance for the recognition and treatment of SAD with bright light therapy in adults with ADHD.

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### **Seasonal Affective Symptoms in Adults with Residual Attention-Deficit Hyperactivity Disorder**

Compr Psychiatry 1999 Jul-Aug;40(4):261-7

**Levitan RD, Jain UR, Katzman MA.**

There is evidence from clinical, epidemiological, and neuroimaging studies that attention-deficit hyperactivity disorder (ADHD) and seasonal affective disorder (SAD) may have several features in common. To assess seasonal affective symptoms in adults with ADHD, 115 individuals attending an adult ADHD clinic in Toronto, Ontario, Canada were asked to complete the Seasonal Pattern Assessment Questionnaire (SPAQ). From this clinic population of 115, a total of 56 completed SPAQs were returned. Assuming that all individuals failing to complete the SPAQ were nonseasonal and depending on which case-finding criteria were used, the rate of SAD in the overall clinic sample was estimated at either 10.4% (Terman criteria) or 19.1% (criteria of Kasper et al.). These prevalence rates are significantly greater than the rates reported in large population surveys at similar latitudes. There was an apparent relationship between female gender, impulsive-subtype ADHD, and seasonality. Future studies to examine whether core symptoms of ADHD fluctuate across the seasons and to assess the efficacy of light therapy in "seasonal" ADHD patients would be of great theoretical and clinical interest.