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Brief report

Light room therapy effective in mild forms of seasonal affective disorder—A randomised controlled study

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Abstract

Background: The most common way to provide bright light therapy to Swedish patients with Seasonal Affective Disorder (SAD), is treatment in a light therapy room. Since few studies have evaluated treatment provided in this setting and few have evaluated the effect of bright light in sub-clinical SAD (S-SAD), such a study including a one-month follow-up was designed.
Methods: Fifty adults recruited from a previous prevalence study and clinically assessed as having SAD or S-SAD, were randomised to treatment in a light room or to a three-week waiting-list control group. The Hamilton Depression Rating Scale-Seasonal Affective Disorders Self-rating 29-items Version (SIGH-SAD/SR) was used to measure depressive mood at baseline, directly following treatment and at the one-month follow-up.
Results: ANCOVA with adjustment for baseline depression score, showed a significant main effect for the light room therapy group ($p<0.001$). Fifty-four percent ($n=13/24$) improved ≥50% while no such improvement was seen in the control condition ($n=0/24$). After merging the two groups, repeated measures ANOVA confirmed the experimental analysis ($p<0.001$). At the one-month follow-up, 83.0% ($n=39/47$) had improved ≥50% and 63.8% ($n=30/47$) had normal depression scores, i.e. ≤8.
Conclusions: Light room therapy was effective in reducing depressive symptoms in subjects with winter depressive mood. Results were maintained over a period of one month.

Keywords: Bright light therapy; Light room therapy; Randomised controlled trial; SAD; S-SAD; SIGH-SAD/SR

1. Introduction

The most common way to provide bright light therapy (BLT) to Swedish patients with Seasonal Affective Disorder (SAD) (Golden et al., 2005; Lam et al., 2006) is treatment in a light therapy room, but few studies have evaluated treatment in this setting (Thalen et al., 1995). Light room therapy (LRT) is usually provided in hospitals while treatment with light boxes more commonly are given in patients' homes (Terman and Terman, 2006). The two settings used for treatment with BLT differ in several ways and it cannot be assumed that data from either setting is valid for the other. Furthermore, there are few studies on the effect of BLT in subclinical SAD (S-SAD); winter depressive mood that

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do not meet the criteria for major depression (Kasper et al., 1989; Lam et al., 2001; Levitt et al., 2002). Since most previous studies evaluate short-term effects only, longer follow-up periods are also warranted.

The aim of the present study was to evaluate light room therapy in subjects with winter depressive mood (i.e. SAD and S-SAD) using a waiting-list control group design. A further aim was to evaluate effects over a follow-up period of one month and to estimate some frequently used measures of clinical response.

2. Methods

2.1. Subjects and design

Fifty subjects (20–68 years) with winter depressive mood, were recruited from an earlier prevalence study (Rastad et al., 2005) in the county of Dalarna at approximately lat 60.5 N (Fig. 1, step 1). Subjects were interviewed by telephone (C.R.) and subsequently diagnosed by an experienced psychiatrist in a clinical interview, performed before the seasonal symptoms appeared (Fig. 1, steps 2–3).

The inclusion criteria were: (1) a history of major depressive disorder with a winter seasonal pattern as defined by the DSM-IV (APA, 1994) or depressive mood during the winter season according to the description of S-SAD by Kasper et al. (1989), (2) being able to schedule 2–4 h each morning for ten consecutive weekdays, (3) sufficient knowledge of the Swedish language. The exclusion criteria were: (1) severe psychiatric or somatic disease, (2) prescribed anti-depressive medication or treatment with antibiotics, (3) self-medication with the herb St. John´s Wort, (4) pregnancy, (5) an eye condition that precluded exposure to strong light, (6) current shift work, (7) previous treatment with light therapy.

The randomisation was done by a statistician after baseline scoring with separate lists for men and women (Kazdin, 1998). Randomisation was blind to the experimenter until the intervention was to be carried out. Restricted randomisation with a probability factor of 0.8 was used, thus minimizing imbalance in numbers between groups (Hjelm-Karlsson, 1991). A total of 51 subjects were randomised to either LRT or the three-week waiting-list control condition (WLC) followed by LRT. One subject was excluded after randomisation due to pregnancy. Written, informed consent was obtained from all the 50 participants. Baseline characteristics are presented in Table 1. There were no statistically significant differences between groups at baseline.

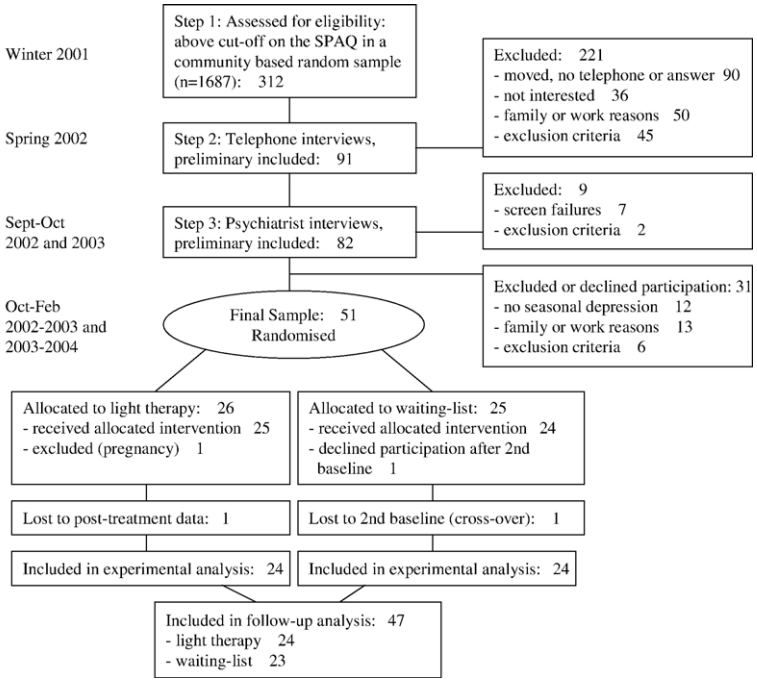

Fig. 1. Consort flow diagram of subject's progression through study. Step 1 refers to a previous prevalence study in which the Seasonal Pattern Assessment Questionnaire (SPAQ) was used (Rastad et al., 2005).