TERAPIA A LUCE BIOFOTONICA BLT
(BRIGHT LIGHT THERAPY)

L’Organismo, essendo costituito da energia (o biofotoni), necessita di assorbire energia. La terapia consiste nell’esporsi, per circa 20 minuti, alla speciale luce biofotonica prodotta da una speciale lampada a soffitto, comodamente sdraiati su un lettino. Tale energia agisce sulla ghiandola pineale, situata alla base del cervello, che secerne l'importante ormone della melatonina; in questo processo sono coinvolti anche due neurotrasmettitori, la serotonina e la dopamina, i quali svolgono un ruolo fondamentale nei meccanismi che regolano l'umore.
E’ disponibile un’amplissima documentazione scientifica sugli impieghi

PRINCIPALI CAMPI DI APPLICAZIONE
• prevenzione: miglioramento delle prestazioni psico-fisiche
• depressione stagionale (SAD): insonnia; irritabilità, sovrappeso; stanchezza
• difficoltà di concentrazione, diminuzione dei tempi di reazione, frequenza di errori
• tossicodipendenti e alcoolisti: per influenzare positivamente l’affettività, la vigilanza, la concentrazione, la memoria.
• turbe da senilità negli anziani
• cambio di fuso orario (jet lag)
• insonnia dovuta ad alterazione del ciclo circadiano

CARATTERISTICHE TECNICHE
• dimensioni: 150 x 40 cm
• peso: 7 Kg
• potenza luminosa 8.000 lumen
• assorbimento 120 Watt
• alimentatore 24 Volt
RASSEGNA DI LAVORI PUBBLICATI SU BLT


[Light therapy as a treatment for sexual dysfunctions--beyond a pilot study].

[Article in Polish]

Abstract
OBJECTIVES:
Seasonal trends were demonstrated in reproduction and sexual activity. Through the secretion of melatonin the pineal gland plays an important role in the neuroendocrine control of sexual function and reproductive physiology. We hypothesized that inhibition of the pineal gland activity through a light treatment may favorably affect sexual function.

METHODS:
We recruited 24 subjects with a diagnosis of hypoactive sexual desire disorder and/or primary sexual arousal disorder. The subjects were randomly assigned to either active light treatment (ALT) or placebo light treatment (L-PBO). Participants were assessed during the first evaluation and after 2 weeks of treatment, using the Structured Clinical Interview for Sexual Disorders DSM-IV (SCID-S) and a self-administered rating scale of the level of sexual satisfaction (1 to 10). Repeated ANOVA measures were performed to compare the two groups of patients. Post-hoc analysis was performed by Holm-Sidak test for repeated comparisons. Results. At baseline the two groups were comparable. After 2 weeks the group treated with Light Therapy showed a significant improvement in sexual satisfaction, about 3 times higher than the group that received placebo, while no significant improvement was observed in the group L-PBO. Conclusions. Our results confirm a potentially beneficial effect of Light Therapy on primary sexual dysfunction. In the future, we propose to correlate clinical findings with testosterone levels pre/post treatment.

PMID: 25007542


Bright light therapy for depression: a review of its effects on chronobiology and the autonomic nervous system.

Oldham MA1, Ciraulo DA.

Author information
Abstract
Bright light therapy (BLT) is considered among the first-line treatments for seasonal affective disorder (SAD), yet a growing body of literature supports its use in other neuropsychiatric conditions including non-seasonal depression. Despite evidence of its antidepressant efficacy, clinical use of BLT remains highly variable internationally. In this article, we explore the autonomic effects of BLT and suggest that such effects may play a role in its antidepressant and chronotherapeutic properties. After providing a brief introduction on the clinical application of BLT, we review the chronobiological effects of BLT on depression and on the autonomic nervous system in depressed and non-depressed individuals with an emphasis on non-seasonal depression. Such a theory of autonomic modulation via BLT could serve to integrate aspects of recent work centered on alleviating allostatic load, the polyvagal theory, the neurovisceral integration model and emerging evidence on the roles of glutamate and gamma-hydroxybutyric acid (GABA).

PMID:24397276
The effect of bright light therapy on sleep and circadian rhythms in renal transplant recipients: a pilot randomized, multicentre wait-list controlled trial.


Abstract

This study assessed the effect and feasibility of morning bright light therapy (BLT) on sleep, circadian rhythms, subjective feelings, depressive symptomatology and cognition in renal transplant recipients (RTx) diagnosed with sleep-wake disturbances (SWD). This pilot randomized multicentre wait-list controlled trial included 30 home-dwelling RTx randomly assigned 1:1 to either 3 weeks of BLT or a wait-list control group. Morning BLT (10 000 lux) was individually scheduled for 30 min daily for 3 weeks. Wrist actimetry (measuring sleep and circadian rhythms), validated instruments (subjective feelings and cognition) and melatonin assay (circadian timing) were used. Data were analysed via a random-intercept regression model. Of 30 RTx recipients (aged 58 ± 15, transplanted 15 ± 6 years ago), 26 completed the study. While BLT had no significant effect on circadian and sleep measures, sleep timing improved significantly. The intervention group showed a significant get-up time phase advance from baseline to intervention (+24 min) (standardized estimates (SE): -0.23 (-0.42; -0.03)) and a small (+14 min) but significant bedtime phase advance from intervention to follow-up (SE: -0.25 (-0.41; -0.09). Improvement in subjective feelings and depressive symptomatology was observed but was not statistically significant. Bright light therapy showed preliminary indications of a beneficial effect in RTx with sleep-wake disturbances. (ClinicalTrials.gov number: NCT01256983).

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KEYWORDS:
bright light therapy; randomized controlled trial; renal transplantation

PMID:25182079 [PubMed - in process]
Combined caffeine and bright light reduces dangerous driving in sleep-deprived healthy volunteers: a pilot cross-over randomised controlled trial.

Hartley SL¹, Barbot F, Machou M, Lejaille M, Moreau B, Vaugier I, Lofaso F, Quera-Salva MA.

**Author information**

**Abstract**

AIM OF THE STUDY:
To explore the effects of caffeine and bright light therapy on simulated nighttime driving in sleep-deprived healthy volunteers.

PARTICIPANTS AND METHODS:
Twelve male healthy volunteers aged 20 to 50 years participated in a randomized cross-over study of simulated nighttime driving at a sleep laboratory, followed by recovery sleep with polysomnography at home. The volunteers received variable combinations of caffeine 200mg (C+), caffeine placebo (C-), bright light 10,000 lux (L+), and bright light placebo<50 lux (L-), in four sessions (C+L+, C+L-, C-L+, C-L-), in random order with a wash-out period of 7 days. Treatments were given at 1 a.m. and testing was performed at 1:30 a.m., 3 a.m., 4 a.m., and 6 a.m. Lane drifting was the primary outcome measure. Other measures were reaction times, self-rated fatigue, sleepiness and recovery sleep.

RESULTS:
Without treatment, lane drifting increased throughout the night, and objective and subjective vigilance declined. Paired comparisons showed that lane drifting was significantly worse at 6 a.m. and at 4 a.m. than at 1:30 a.m. There was a global treatment effect on lane drifting. Lane drifting at 6 a.m. was significantly decreased with C+L+ compared to C-L-.

CONCLUSIONS:
Bright light therapy combined with caffeine administered at 1 a.m. decreased lane drifting by healthy volunteers during simulated nighttime driving.

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**KEYWORDS:**
Bright light; Caffeine; Caféine; Driving simulator; Lumière blanche; Privation de sommeil; Simulateur de conduite; Sleep deprivation; Vigilance

PMID: 23856172 [PubMed - indexed for MEDLINE]
Is there a difference in clinical efficacy of bright light therapy for different types of depression? A pilot study.

Naus T¹, Burger A, Malkoc A, Molendijk M, Haffmans J.

Abstract

BACKGROUND: There is growing interest in the possible applications of Bright Light Therapy (BLT). BLT might be a valid alternative or add-on treatment for many other psychiatric disorders beyond seasonal affective disorder. This pilot study aims to examine whether the efficacy of Bright Light Therapy (BLT) is similar for different subtypes of mood disorders.

METHODS: Participants were 48 newly admitted outpatients with major depressive disorder with either melancholic features (n=20) or atypical features (n=28). Morning BLT was administered daily for 30 min at 5,000-10,000 lx on working days for up to 3 consecutive weeks.

RESULTS: Participants' depressive symptoms improved significantly after BLT (p<.05, d=-.53). The effects of BLT remained stable across a 4 week follow-up. There were no significant differences in efficacy of BLT between groups (p>.05). No effect of seasonality on the improvement in depressive symptoms after BLT was found, (p=.781).

LIMITATIONS: The study had a small sample size and lacked a control condition.

CONCLUSIONS: This pilot study provides preliminary evidence that BLT could be a promising treatment for depression, regardless of the melancholic or atypical character of the depressive symptoms.

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KEYWORDS: Bright light therapy; Major depression; Seasonality

PMID: 3972661 [PubMed - indexed for MEDLINE]

[The current state of research in bright light therapy].

[Bassa D1, Canazei M, Hinterhuber H, M Weiss E.]

Abstract

The significance of light for the human organism and especially for the mental health is well-established for a long time. Therefore, the impact of light on mood and the use of bright light as a treatment-option for affective disorders have been studied extensively by scientists. Today bright light therapy is the treatment of choice for seasonal affective disorders. In the last years several clinical trials could demonstrate the therapeutic efficacy of bright light therapy for different neurological and psychiatric disorders such as sleep disorders, non-seasonal affective disorders or dementia. This article will give an overview about the neurobiological basis for light therapy and discuss different disorders responsive to light therapy. Finally a short overview about technical aspects of light therapy and new developments in light engineering will be presented.

PMID: 23793981 [PubMed - in process]
Short-term effects of bright light therapy in adults with chronic nonspecific back pain: a randomized controlled trial.


Author information

Abstract
OBJECTIVE:
The present trial evaluated incorporation of bright light therapy in the treatment of chronic nonspecific back pain (CNBP).

DESIGN:
A prospective, randomized, controlled, multicenter, open design with three parallel trial arms was used.

SETTING:
Subjects received a novel therapeutic, an expected therapeutic ineffective low dose, or no light exposure at three different medical centers.

PATIENTS:
A total of 125 CNBP patients reporting pain intensity of ≥3 points on item 5 of the Brief Pain Inventory (BPI) were included.

INTERVENTION:
Over 3 weeks, 36 active treatment, 36 placebo controls, and 33 controls received 3 or no supplementary light exposures of 5,000 lx or 230 lx, respectively.

OUTCOME MEASURES:
CHANGES IN SELF-REPORTED SCORES OF PAIN INTENSITY (BPI SUB-SCORE 1) AND DEPRESSION (HOSPITAL ANXIETY AND DEPRESSION QUESTIONNAIRE) WERE THE PRIMARY OUTCOME MEASURES. SECONDARY OUTCOME MEASURES WERE changes in self-reported overall pain sensation (BPI total score), grade of everyday life impairment (BPI sub-score 2), mood (visual analog scale), and well-being (World Health Organization-Five Well-Being Index).

RESULTS:
Changes in pain intensity were higher (1.0 [0.8-1.6]) in the bright light group compared with controls (0.3 [-0.1-0.8]; effect size D = 0.46). Changes in the depression score were also higher in the intervention group (1.5 [0.0-2.5]) compared with controls (0.0 [0.0-2.0]; effect size D = 0.86). No differences were seen in change scores between intervention vs sham group.

CONCLUSION:
The present randomized controlled trial shows that light therapy even in low dose could improve depressive symptoms and reduce pain intensity in CNBP patients. Further research is needed for optimizing parameters of frequency, dose, and duration of therapeutic light exposure.

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KEYWORDS:
Bright Light Therapy (BLT); Chronic Nonspecific Back Pain; Depression; Multicenter Trial; Randomized Controlled Trial (RCT)

PMID: 25159085 [PubMed - in process]
Rapid treatment response of suicidal symptoms to lithium, sleep deprivation, and light therapy (chronotherapeutics) in drug-resistant bipolar depression.

Benedetti F, Riccaboni R, Locatelli C, Poletti S, Dallaspezia S, Colombo C.

Abstract

BACKGROUND:
One third of patients with bipolar disorder attempt suicide. Depression in bipolar disorder is associated with drug resistance. The efficacy of antidepressants on suicidality has been questioned. Total sleep deprivation and light therapy prompt a rapid and stable antidepressant response in bipolar disorder.

METHOD:
We studied 143 consecutively admitted inpatients (December 2006-August 2012) with a major depressive episode in the course of bipolar disorder (DSM-IV criteria). Among the 141 study completers, 23% had a positive history of attempted suicide and 83% had a positive history of drug resistance. During 1 week, patients were administered 3 consecutive total sleep deprivation cycles (each composed of a period of 36 hours awake followed by recovery sleep) combined with bright light therapy in the morning for 2 weeks. At admission, patients who had been taking lithium continued it, and those who had not been taking lithium started it. Severity of depression was rated according to the Hamilton Depression Rating Scale (HDRS) (primary outcome measure) and Beck Depression Inventory (BDI).

RESULTS:
Two patients switched polarity. Among the 141 who completed the treatment, 70% achieved a 50% reduction in HDRS score in 1 week, which persisted 1 month after in 55%. The amelioration involved an immediate and persistent decrease in suicide scores soon after the first total sleep deprivation cycle (F3,411 = 42.78, P < .00001). A positive history of suicide attempts was associated with worse early life stress and with worse suicide scores at baseline, but it did not influence response. Patients with current suicidal thinking or planning responded equally well (F3,42 = 20.70, P < .000001). Remarkably, however, nonresponders achieved a benefit, with significantly decreased final scores also including suicidality ratings (F3,120 = 6.55, P = .0004). Self-ratings showed the same pattern of change. Previous history of drug resistance did not hamper response. During the following month, 78 of 99 responders continued to stay well and were discharged from the hospital on lithium therapy alone.

CONCLUSIONS:
The combination of total sleep deprivation, light therapy, and lithium is able to rapidly decrease depressive suicidality and prompt antidepressant response in drug-resistant major depression in the course of bipolar disorder.

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PMID: 24345382 [PubMed - indexed for MEDLINE]
A randomized controlled trial with bright light and melatonin for delayed sleep phase disorder: effects on subjective and objective sleep.

Saxvig IW¹, Wilhelmsen-Langeland A, Pallesen S, Vedaa O, Nordhus IH, Bjorvatn B.

Abstract

Delayed sleep phase disorder (DSPD) is assumed to be common amongst adolescents, with potentially severe consequences in terms of school attendance and daytime functioning. The most common treatment approaches for DSPD are based on the administration of bright light and/or exogenous melatonin with or without adjunct behavioural instructions. Much is generally known about the chronobiological effects of light and melatonin. However, placebo-controlled treatment studies for DSPD are scarce, in particular in adolescents and young adults, and no standardized guidelines exist regarding treatment. The aim of the present study was, therefore, to investigate the short- and long-term effects on sleep of a DSPD treatment protocol involving administration of timed bright light and melatonin alongside gradual advancement of rise time in adolescents and young adults with DSPD in a randomized controlled trial and an open label follow-up study. A total of 40 adolescents and young adults (age range 16-25 years) diagnosed with DSPD were recruited to participate in the study. The participants were randomized to receive treatment for two weeks in one of four treatment conditions: dim light and placebo capsules, bright light and placebo capsules, dim light and melatonin capsules or bright light and melatonin capsules. In a follow-up study, participants were re-randomized to either receive treatment with the combination of bright light and melatonin or no treatment in an open label trial for approximately three months. Light and capsules were administered alongside gradual advancement of rise times. The main end points were sleep as assessed by sleep diaries and actigraphy recordings and circadian phase as assessed by salivary dim light melatonin onset (DLMO). During the two-week intervention, the timing of sleep and DLMO was advanced in all treatment conditions as seen by about 1 h advance of bed time, 2 h advance of rise time and 2 h advance of DLMO in all four groups. Sleep duration was reduced with approximately 1 h. At three-month follow-up, only the treatment group had maintained an advanced sleep phase. Sleep duration had returned to baseline levels in both groups. In conclusion, gradual advancement of rise time produced a phase advance during the two-week intervention, irrespective of treatment condition. Termination of treatment caused relapse into delayed sleep times, whereas long-term treatment with bright light and melatonin (three months) allowed maintenance of the advanced sleep phase.
Adjunctive triple chronotherapy (combined total sleep deprivation, sleep phase advance, and bright light therapy) rapidly improves mood and suicidality in suicidal depressed inpatients: an open label pilot study.


Abstract

Previous studies have demonstrated that combined total sleep deprivation (Wake therapy), sleep phase advance, and bright light therapy (Triple Chronotherapy) produce a rapid and sustained antidepressant effect in acutely depressed individuals. To date no studies have explored the impact of the intervention on unipolar depressed individuals with acute concurrent suicidality. Participants were suicidal inpatients (N = 10, Mean age = 44 ± 16.4 SD, 6F) with unipolar depression. In addition to standard of care, they received open label Triple Chronotherapy. Participants underwent one night of total sleep deprivation (33-36 h), followed by a three-night sleep phase advance along with four 30-min sessions of bright light therapy (10,000 lux) each morning. Primary outcome measures included the 17 item Hamilton depression scale (HAM17), and the Columbia Suicide Severity Rating Scale (CSSRS), which were recorded at baseline prior to total sleep deprivation, and at protocol completion on day five. Both HAM17, and CSSRS scores were greatly reduced at the conclusion of the protocol. HAM17 scores dropped from a mean of 24.7 ± 4.2 SD at baseline to a mean of 9.4 ± 7.3 SD on day five (p = .002) with six of the ten individuals meeting criteria for remission. CSSRS scores dropped from a mean of 19.5 ± 8.5 SD at baseline to a mean of 7.2 ± 5.5 SD on day five (p = .01). The results of this small pilot trial demonstrate that adjunctive Triple Chronotherapy is feasible and tolerable in acutely suicidal and depressed inpatients. Limitations include a small number of participants, an open label design, and the lack of a comparison group. Randomized controlled studies are needed.

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KEYWORDS:
Chronotherapy; Depression; Inpatients; Phototherapy; Sleep deprivation; Suicidal ideation

PMID: 25231629 [PubMed - in process]
Behavioral therapy reverses circadian deficits in a transgenic mouse model of Huntington’s disease.

Cuesta M1, Aungier J2, Morton AJ3.

Abstract
Progressive disruption of circadian rhythmicity associated with disturbance of the sleep-wake cycle is one of the most insidious symptoms of Huntington’s disease (HD) and represents a critical management issue for both patients and their caregivers. The R6/2 mouse model of HD shows a progressive disruption of the circadian rhythmicity at both behavioral and molecular levels, although the intrinsic cellular machinery that drives circadian rhythmicity in individual cells appears to be fundamentally intact. Circadian rhythms are controlled by a master clock located in the suprachiasmatic nuclei (SCN) and can be synchronized by light and non-photic factors such as exercise. Here, we aimed to test whether or not stimulating the SCN directly could prevent the loss of circadian rhythmicity in R6/2 mice. We used combinations of bright light therapy and voluntary exercise as our treatment regimes. We found that all treatments had some beneficial effects, as measured by delayed disintegration of the rest-activity rhythm and improved behavioral synchronization to the light-dark cycle. The best effects were observed in mice treated with a combination of bright light therapy and restricted periods of voluntary exercise. Neither the cause nor the consequence of deteriorating sleep-wake activity in HD patients is known. Nevertheless, our findings can be translated immediately to human patients with little cost or risk, since both light therapy and restricted exercise regimes are non-pharmacological interventions that are relatively easy to schedule. Improved circadian rhythmicity is likely to have beneficial knock-on effects on mood and general health in HD patients. Until effective treatments are found for HD, strategies that reduce deleterious effects of disordered physiology should be part of HD patient treatment programs.

KEYWORDS:
Alzheimer’s disease; Bright light therapy; Circadian; Exercise; Sleep

PMID: 24269914 [PubMed - indexed for MEDLINE]
Delayed sleep phase disorder (DSPD) is assumed to be common amongst adolescents, with potentially severe consequences in terms of school attendance and daytime functioning. The most common treatment approaches for DSPD are based on the administration of bright light and/or exogenous melatonin with or without adjunct behavioural instructions. Much is generally known about the chronobiological effects of light and melatonin. However, placebo-controlled treatment studies for DSPD are scarce, in particular in adolescents and young adults, and no standardized guidelines exist regarding treatment. The aim of the present study was, therefore, to investigate the short- and long-term effects on sleep of a DSPD treatment protocol involving administration of timed bright light and melatonin alongside gradual advancement of rise time in adolescents and young adults with DSPD in a randomized controlled trial and an open label follow-up study. A total of 40 adolescents and young adults (age range 16-25 years) diagnosed with DSPD were recruited to participate in the study. The participants were randomized to receive treatment for two weeks in one of four treatment conditions: dim light and placebo capsules, bright light and placebo capsules, dim light and melatonin capsules or bright light and melatonin capsules. In a follow-up study, participants were re-randomized to either receive treatment with the combination of bright light and melatonin or no treatment in an open label trial for approximately three months. Light and capsules were administered alongside gradual advancement of rise times. The main end points were sleep as assessed by sleep diaries and actigraphy recordings and circadian phase as assessed by salivary dim light melatonin onset (DLMO). During the two-week intervention, the timing of sleep and DLMO was advanced in all treatment conditions as seen by about 1 h advance of bed time, 2 h advance of rise time and 2 h advance of DLMO in all four groups. Sleep duration was reduced with approximately 1 h. At three-month follow-up, only the treatment group had maintained an advanced sleep phase. Sleep duration had returned to baseline levels in both groups. In conclusion, gradual advancement of rise time produced a phase advance during the two-week intervention, irrespective of treatment condition. Termination of treatment caused relapse into delayed sleep times, whereas long-term treatment with bright light and melatonin (three months) allowed maintenance of the advanced sleep phase.
Sleep loss and circadian disruption in shift work: health burden and management.

Rajaratnam SM1, Howard ME, Grunstein RR.

Abstract

About 1.5 million Australians are shift workers. Shift work is associated with adverse health, safety and performance outcomes. Circadian rhythm misalignment, inadequate and poor-quality sleep, and sleep disorders such as sleep apnoea, insomnia and shift work disorder (excessive sleepiness and/or insomnia temporally associated with the work schedule) contribute to these associations. Falling asleep at work at least once a week occurs in 32%-36% of shift workers. Risk of occupational accidents is at least 60% higher for non-day shift workers. Shift workers also have higher rates of cardiometabolic diseases and mood disturbances. Road and workplace accidents related to excessive sleepiness, to which shift work is a significant contributor, are estimated to cost $71-$93 billion per annum in the United States. There is growing evidence that understanding the interindividual variability in sleep-wake responses to shift work will help detect and manage workers vulnerable to the health consequences of shift work. A range of approaches can be used to enhance alertness in shift workers, including screening and treating sleep disorders, melatonin treatment to promote sleep during the daytime, and avoidance of inappropriate use of sedatives and wakefulness-promoters such as modafinil and caffeine. Short naps, which minimise sleep inertia, are generally effective. Shifting the circadian pacemaker with appropriately timed melatonin and/or bright light may be used to facilitate adjustment to a shift work schedule in some situations, such as a long sequence of night work. It is important to manage the health risk of shift workers by minimising vascular risk factors through dietary and other lifestyle approaches.

PMID: 24138359 [PubMed - indexed for MEDLINE]

The circadian rhythm in adult attention-deficit/hyperactivity disorder: current state of affairs.

Kooij JJ1, Bijlenga D.

Abstract

Adults with ADHD often have sleep problems that are caused by a delay of their internal circadian rhythm system. Such individuals are often typified as 'evening' or 'night' persons. This review focuses on the link between ADHD symptoms and the evening typology through multiple pathways. Etiology of the internal circadian rhythm system, the genetic basis for evening typology, overlap between ADHD symptoms and evening preference and risk factors for various chronic health conditions, including metabolic syndrome and cancer, are discussed. The treatment perspectives to reset the delayed rhythm in adults with ADHD involve psychoeducation on sleep hygiene, melatonin in the afternoon or evening and bright light therapy in the morning.

PMID: 24117273 [PubMed - indexed for MEDLINE]
A randomized controlled trial with bright light and melatonin for the treatment of delayed sleep phase disorder: effects on subjective and objective sleepiness and cognitive function.

Wilhelmsen-Langeland A1, Saxvig IW, Pallesen S, Nordhus IH, Vedaa Ø, Lundervold AJ, Bjorvatn B.

Abstract

Delayed sleep phase disorder (DSPD) is a circadian rhythm sleep disorder. Patients with DSPD have problems initiating sleep if they go to bed at a conventional time, and they often have problems waking at desired times. If they rise early in the morning, they usually experience severe sleepiness during morning hours. In the present study, we investigated the short- and long-term effects on measures of subjective and objective sleepiness and cognitive function of bright light and melatonin treatment alongside gradually advanced rise times in adolescents and young adults. Four treatment conditions were used in the short-term intervention (2 weeks): dim light (placebo) + placebo capsule, bright light + placebo capsule, dim light (placebo) + melatonin capsule, and bright light + melatonin capsule. This was followed by a long-term intervention (3 months) including 2 conditions: no treatment and combined brightlight + melatonin treatment. Effects of treatment on sleepiness and fatigue were the primary outcome measures, and effects on cognitive function were secondary outcome measures. On a gradual advancement of the rise time schedule, all treatment conditions (bright light, melatonin, combination, and placebo) were almost equally effective in improving subjective daytime sleepiness, fatigue, and cognitive function in the 2-week study. The 2-week intervention showed no effect on objective sleepiness. Long-term treatment increased some of the positive effects seen after 2 weeks. The combined bright light and melatonin treatment improved subjective daytime sleepiness, fatigue, and cognitive function in the 3-month study. The no-treatment group returned to baseline values on most variables. In conclusion, a gradual advancement of rise times seems to produce positive effects on subjective sleepiness, fatigue, and cognitive performance during short-term treatment of patients with DSPD. However, the benefits from gradually advanced rise times seem to wear off, suggesting that the continuation of bright light and melatonin treatment is beneficial to maintain positive effects over time.

KEYWORDS: bright light; circadian rhythms; daytime function; delayed sleep phase disorder; melatonin; randomized controlled trial; treatment

PMID: 24132057 [PubMed - indexed for MEDLINE]
Is there a difference in clinical efficacy of bright light therapy for different types of depression? A pilot study.

Naus T, Burger A, Malkoc A, Molendijk M, Haffmans J.

Abstract BACKGROUND:
There is growing interest in the possible applications of Bright Light Therapy (BLT). BLT might be a valid alternative or add-on treatment for many other psychiatric disorders beyond seasonal affective disorder. This pilot study aims to examine whether the efficacy of Bright Light Therapy (BLT) is similar for different subtypes of mood disorders.

METHODS:
Participants were 48 newly admitted outpatients with major depressive disorder with either melancholic features (n=20) or atypical features (n=28). Morning BLT was administered daily for 30 min at 5,000-10,000 lx on working days for up to 3 consecutive weeks.

RESULTS:
Participants' depressive symptoms improved significantly after BLT (p<.05, d=-.53). The effects of BLT remained stable across a 4 week follow-up. There were no significant differences in efficacy of BLT between groups (p>.05). No effect of seasonality on the improvement in depressive symptoms after BLT was found, (p=.781).

LIMITATIONS:
The study had a small sample size and lacked a control condition.

CONCLUSIONS:
This pilot study provides preliminary evidence that BLT could be a promising treatment for depression, regardless of the melancholic or atypical character of the depressive symptoms.

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KEYWORDS:
Bright light therapy; Major depression; Seasonality

PMID: 23972661 [PubMed - indexed for MEDLINE]