

Submitted question to the Help Desk of the OSMET on September 3rd, 2020

Question : What are the best intervention practices in regards to seasonal depression displayed by workers teleworking?

Procedure : The OSMET has proceeded with a systematic review of existing meta-analyses and reviews during the 2005-2019 period. The Annex-1 displays the methodological details of the answer to this question.

Answer : Scientific proof pertaining to programs or interventions aimed at reducing seasonal depression remain limited. There are few studies, which all comprise small samples and only rarely focus on worker populations. These studies do not permit an adequate measure of the interventions' effects.

A synthesis of the obtained results is displayed in the following table:

Program type or interventions/Population/Country	Seasonal depression	Reference
Cognitive therapy based on mindfulness/non-clinical population/Netherlands.	Very low effect	Forneris & al. (2019)
Bright light therapy/general adult population/USA	High effect (moderate effect on regular depression)	Golden & al. (2005)
Dawn simulation/general adult population/USA	High effect (no effect on regular depression)	Golden & al. (2005)
Luminotherapy/non-clinical adult population/Netherlands	Very low effect (2500 lux bright light using a visor vs. no light exposure) Very low effect (0.18 lux infrared vs. no light exposure)	Nussbaumer-Streit & al. (2019)

Program type or interventions/Population/Country	Seasonal depression	Reference
Workstation lighting/indoor day-shift workers from various activity sectors/USA, Belgium, Norway, UK	<p>No effect (high CCT correlated color temperature light vs. normal light)</p> <p>No effect (direct lighting vs. indirect)</p> <p>Low effect (blue enriched light individually administered for 30 minutes)</p> <p>Low effect (bright light during the morning vs. afternoon)</p>	Paquito & al. (2018)

References :

- Forneris_CA, Nussbaumer-Streit_B, Morgan_LC, Greenblatt_A, Van Noord_MG, Gaynes_BN, Wipplinger_J, Lux_LJ, Winkler_D, Gartlehner_G. Psychological therapies for preventing seasonal affective disorder. *Cochrane Database of Systematic Reviews* 2019, Issue 5. Art. No.: CD011270. DOI: 10.1002/14651858.CD011270.pub3.
- Golden RN, Gaynes BN, Ekstrom RD, Hamer RM, Jacobsen FM, Suppes T, Wisner KL, Nemeroff CB. The efficacy of light therapy in the treatment of mood disorders: a review and meta-analysis of the evidence. *Am J Psychiatry*. 2005 Apr;162(4):656-62. doi: 10.1176/appi.ajp.162.4.656
- Nussbaumer-Streit B, Forneris CA, Morgan LC, Van Noord MG, Gaynes BN, Greenblatt A, Wipplinger J, Lux LJ, Winkler D, Gartlehner G. Light therapy for preventing seasonal affective disorder. *Cochrane Database of Systematic Reviews* 2019, Issue 3. Art. No.: CD011269. DOI: 10.1002/14651858.CD011269.pub3.
- Pachito DV, Eckeli AL, Desouky AS, Corbett MA, Partonen T, RajaratnamSMW, Riera R. Workplace lighting for improving alertness and mood in daytime workers. *Cochrane Database of Systematic Reviews* 2018, Issue 3. Art. No.: CD012243. DOI: 10.1002/14651858.CD012243.pub2.

Annex 1

Methodology

The OSMET has proceeded with a systematic review of existing reviews and meta-analyses that were referenced on the following databases: PsycInfo, Web of science, EBSCO (Business Source Premier, Cinhal, Human resources abstracts), PubMed, OVID (EBM reviews, Cochrane database of systematic reviews, Embase, Medline). We used the following keywords: *winter depression or seasonal affective disorder or SAD or seasonal depression AND interventions or preventive measures or workplace health promotion or mental health program. Limit to meta-analysis. Limit to yr="2005-Current"*.

Among 256 studies extracted from the databases, after deduplication and a thorough reading, only four meta-analyses published between 2005 and 2019 corresponded in part or in full to the question submitted to the Help Desk and were thus retained. Most studies contain small sample sizes and pertain to the general population, which are not as useful regarding evaluating worker populations. Moreover, from interventions using luminotherapy emerge reported secondary effects such as ocular irritation, migraines, irritability, insomnia, etc.

Considering that the COVID-19 lockdown is a recent phenomenon, no study has tested telework nor work from home conditions regarding seasonal depression. Thus, there is no evidence to answer the question in full. Nevertheless, the scientific literature demonstrates that telework is generally associated with a reduction of depressive symptoms when said working conditions take in consideration psychological demands, working time hours and work-family conflicts. To know more on such topic, visit the following link: <https://www.osmet.umontreal.ca/en/publications-2/flash-research/flash-research-telework-working-conditions-and-work-family-conflicts/>