

Cognitive Behavioral Therapy for Insomnia adapted for Shift Workers (SW-CBTi) is effective in reducing insomnia, anxiety and depressive symptoms.

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Introduction

Around 45% of shift workers (SW) suffer from insomnia¹ and few, if any, scalable solutions exist to treat their insomnia.

Insomnia in SW is associated with anxiety, depression and chronic pain, but also with higher absenteeism, risks of errors and accidents, and decreased productivity.^{1,2}

CBTi has shown promising outcomes in the SW population,³ but some aspects are not tailored to their reality and needs.

The current study examined the effects of HALEO's SW-CBTi program on insomnia, anxiety and depressive symptoms in SW.

Methods

Patient sample

48 adult shift workers (night, evening, rotating, on call) between 23 and 56 years old with chronic insomnia symptoms completed the program.

Age (years) Gender (men / women) Global satisfaction

Shift workers (N = 48)38.7 ± 8.3 24 / 24 4.5 ± 0.5

Data expressed as mean \pm standard deviation

Protocol

- 1. Online or in-app screener
- 2. Call with clinic coordinator
- 3. Five-weeks online psychotherapy

Intervention

Five weekly 30-min telehealth sessions with a licensed therapist, supported by a digital platform

Outcome measures

- Insomnia Severity Index (ISI)
- Hospital Anxiety and Depression Scale (HADS)

Results

- Data were analyzed with one-tailed paired Student's t-tests.
- SW-CBTi delivered through telehealth represents a feasible treatment for shift workers suffering from insomnia **by reducing the ISI score** (p < .001).
- Five-weeks of insomnia therapy also **reduced** symptoms of anxiety and depression (p < .001).

	Screening results	
Classification	Condition	Result
	Insomnia disorder Chronic insomnia is characterized by difficulty falling asleep or staying asleep, at least 3 nights per week for 3 months or longer.	Severe Risk
Sleep disorders	Obstructive Sleep Apnea (OSA)	Low Risk
	Restless Legs Syndrome(RLS)	Low Risk
	Shift Work Sleep Disorder (SWSD)	Not Applicable
Sleep hygiene	Sleep hygiene rating Your sleep hygiene rating refers to your practice of daily habits that can positively or negatively affect your sleep quality	59% Can be improved
Impact of sleep	Your daytime functioning and safety Poor sleep may be affecting some aspects of your daytime functioning (concentration, memory, reaction time, mood, sleepiness).	High Risk
	Your mental health	Low Risk







t(47) = 7.2, p < .001, d = 1.0



ISI scores are significantly lower post-therapy (7.2 \pm 4.1) compared to baseline (16.9 \pm 3.7). t(47) = 15.9, p < .001, Cohen's d = 2.3

HADS-D scores are significantly lower post-therapy (2.8 \pm 3.2) compared to baseline (5.1 \pm 3.7).

t(47) = 5.8, p < .001, d = 0.8

Discussion

Sectors where shift work is often mandatory include healthcare, safety and security, transport, and supply chain. Many of these have crucial impacts on populations emphasizing the need for tailored treatments to manage sleep disorders among SW.

Shorter, flexible, and accessible interventions delivered via telehealth on a digital platform offer promising treatment options to answer the lack of resources available for the sleep of shift workers.

Conclusion

SW-CBTi delivered through video-conference and supported by a digital platform represents feasible treatment for shift workers a suffering from insomnia.

Treating insomnia in this population also reduces symptoms of anxiety and depression.

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1. Vallières et al., 2014, Sleep Med. doi: 10.1016/j.sleep.2014.06.021. 2. Rosenberg et al., 2011, Postgrad Med. doi: 10.3810/pgm.2011.09.2465. 3. Järnefelt et al., 2012, Sleep Med. doi: 10.1016/j.sleep.2012.10.003.

