

From www to zzZ: Digital cognitive-behavioral therapy for insomnia in cancer survivors

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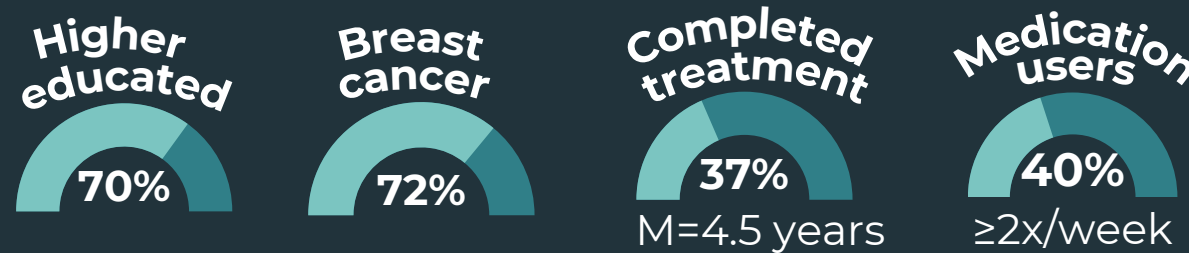
Introduction

Insomnia is **one of the most enduring and burdensome** conditions associated with cancer, **affecting up to one in two cancer survivors**. If inadequately treated, it can have implications for overall cancer recovery (Clara et al., 2023). **Cognitive-behavioral therapy for insomnia (CBT-I) is ubiquitously recommended as the guideline treatment of first choice for insomnia** (Grassi et al, 2023; Howell et al., 2013), **but is very seldom available** to cancer survivors. Digital interventions can help disseminate this gold-standard treatment.

Aim Test the effectiveness of digital CBT-I in cancer survivors through a randomized controlled trial (RCT), and to evaluate its acceptability, usability, and patients' experiences with the intervention.

Results

95% women. Mean (M) age=47 years (24-75)
digital format likely more appealing to younger survivors



EFFECTIVENESS	Pretreatment		Posttreatment		Group x time; Cohen's d	Linear mixed models (intention-to-treat)
	dCBT-I 77	waitlist 77	dCBT-I 70	waitlist 68		
Insomnia severity	17.1	17.0	6.1	15.6	-2.56	11.0-point reduction in insomnia severity
Anxiety	9.3	9.1	6.7	9.6	-0.77	
Depression	6.6	6.6	4.7	7.1	-0.71	
Physical QoL	54.5	53.7	72.6	53.5	1.24	
Psychological QoL	56.2	54.1	66.1	53.9	0.80	
Fatigue	32.0	33.3	10.9	35.2	-1.35	

dCBT-I, digital CBT-I. *p remained significant after Holm's procedure. Cohen's d: between-group differences post-treatment. Higher scores = more severe insomnia, anxiety and depression symptoms, fatigue; better quality of life (QoL).

ACCEPTABILITY & USABILITY

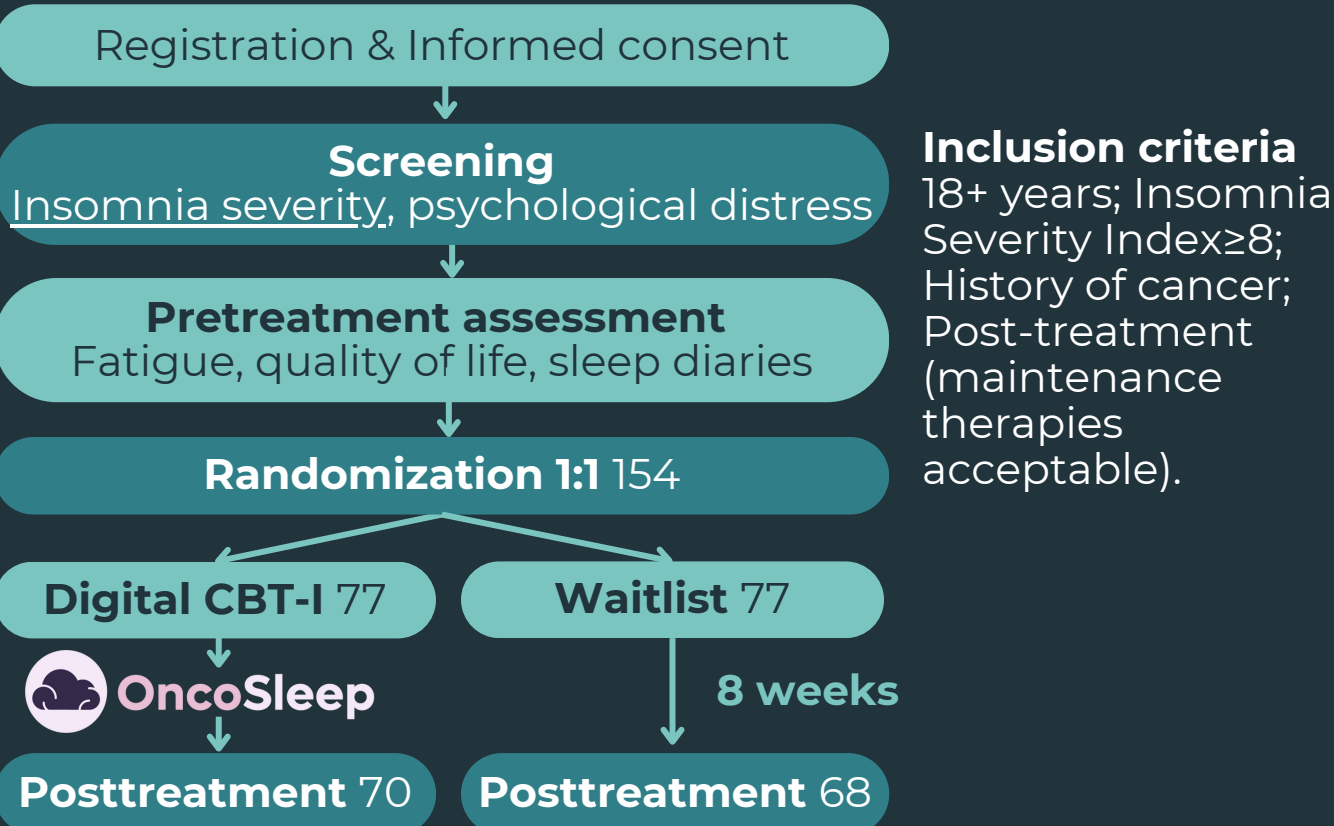
Very low = 0 Low = 1 Moderate = 2 Very high = 3

Usability	23.6%	76.4%
Future use techniques	18.7%	81.3%
Likelihood recommend	15.4%	84.6%

THEMATIC ANALYSIS

Eight themes were relevant for engagement with treatment: **clinician support and monitoring, interactive features and ease of use, perceived efficacy** of treatment techniques, **convenience and non-hospital setting, validation of unmet needs, sleep medication discontinuation, tailored treatment content**, and **empowerment**.

Methods



Flowchart of RCT NCT04898855 (Clara et al., 2025)

Exit survey: quantitative measures + open-text question

Mixed methods perspective acceptability, usability & survivors' experiences

Conclusions

Digital CBT-I with minimal clinician support **appears to be effective in treating insomnia in cancer survivors, with generalized benefits** in comorbid symptoms, functioning, and quality of life. It appears to be **well acceptable by cancer survivors**, facilitating engagement with treatment.

References

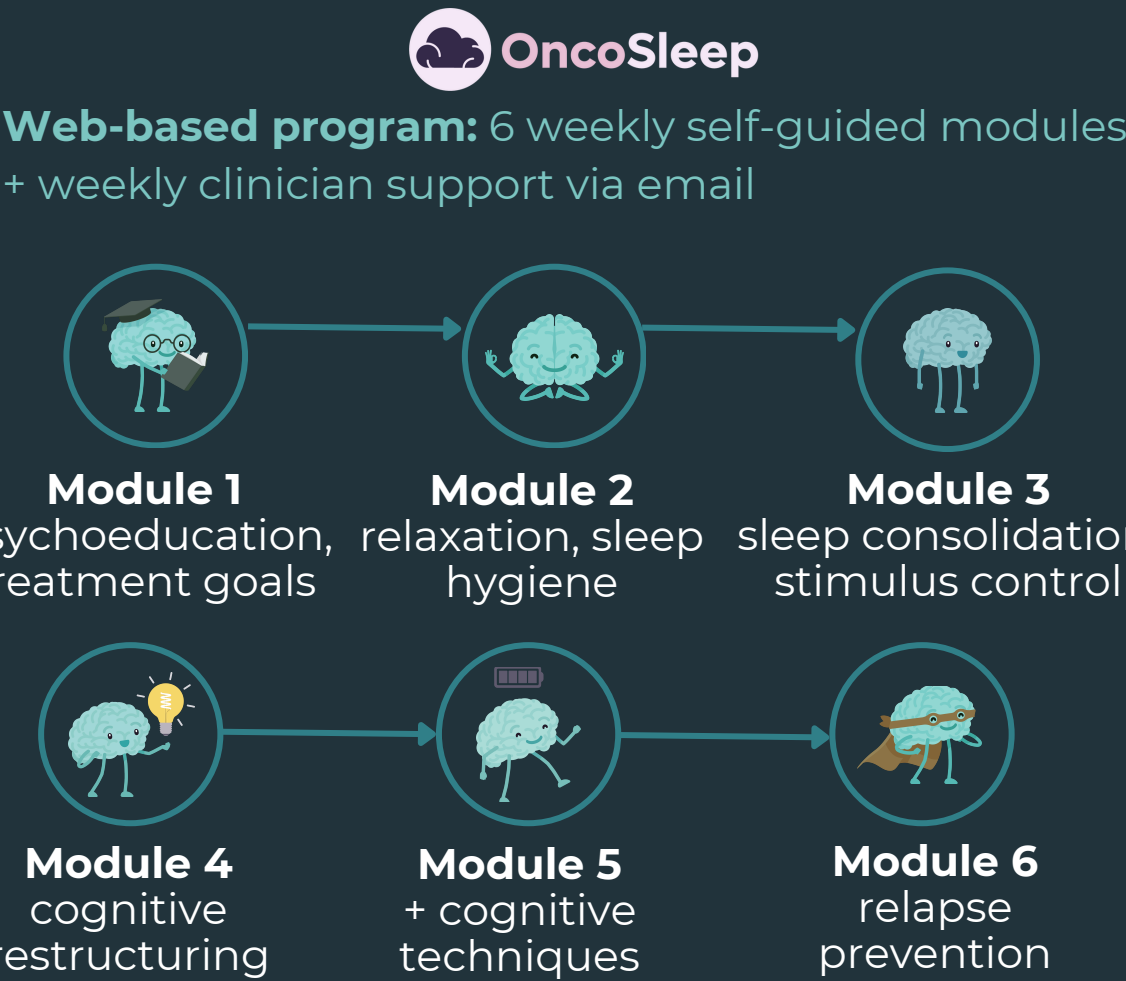
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