

Video-conference delivery of a sleep optimization program for sub-clinical insomnia: Effects on insomnia, depression and anxiety symptoms

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Introduction

Telehealth-based sleep interventions focusing on the treatment of chronic insomnia (i.e., digital CBT-I) are steadily growing in popularity.

To date, few studies have considered the use of a telehealth approach for optimizing sleep in a non-clinical population. Nonetheless, there exists some data to suggest that digital CBT-I can be helpful to reduce insomnia symptoms and promote psychological well-being in individuals with sub-threshold insomnia¹.

We examined whether a **therapist-led sleep optimization program based on sleep hygiene and CBT-I principles and delivered digitally** can reduce the severity of insomnia, anxiety and depression symptoms in adults reporting clinically insignificant or sub-threshold insomnia symptoms.

Methods

Sample

70 adults (34F/ 36M) between ages 20 and 74 with an ISI <15 completed the sleep optimization program.

Descriptives

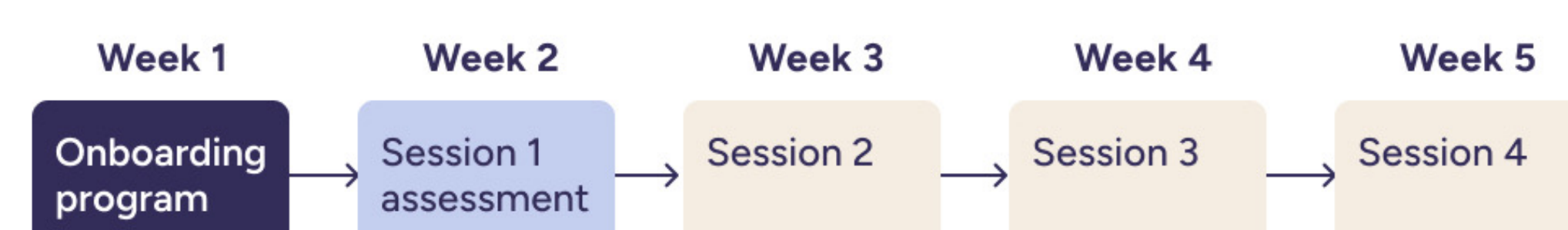
N= 70	Mean	SD	SE
Age (years)	35.8	11.334	1.355
Pre-ISI	9.457	3.184	0.381
Post-ISI	5.114	3.142	0.376
Pre-HADS A	5.886	3.790	0.453
Post-HADS A	4.814	3.103	0.371
Pre-HADS D	4.443	3.512	0.420
Post-HADS D	2.643	2.322	0.278

Outcome Measures

- Insomnia Severity Index (ISI)²
- Hospital Anxiety and Depression Scale (HADS)³

Protocol

1. Online screener
2. Call with clinic coordinator
3. Weekly 25-minute video-conference sessions with a licensed therapist



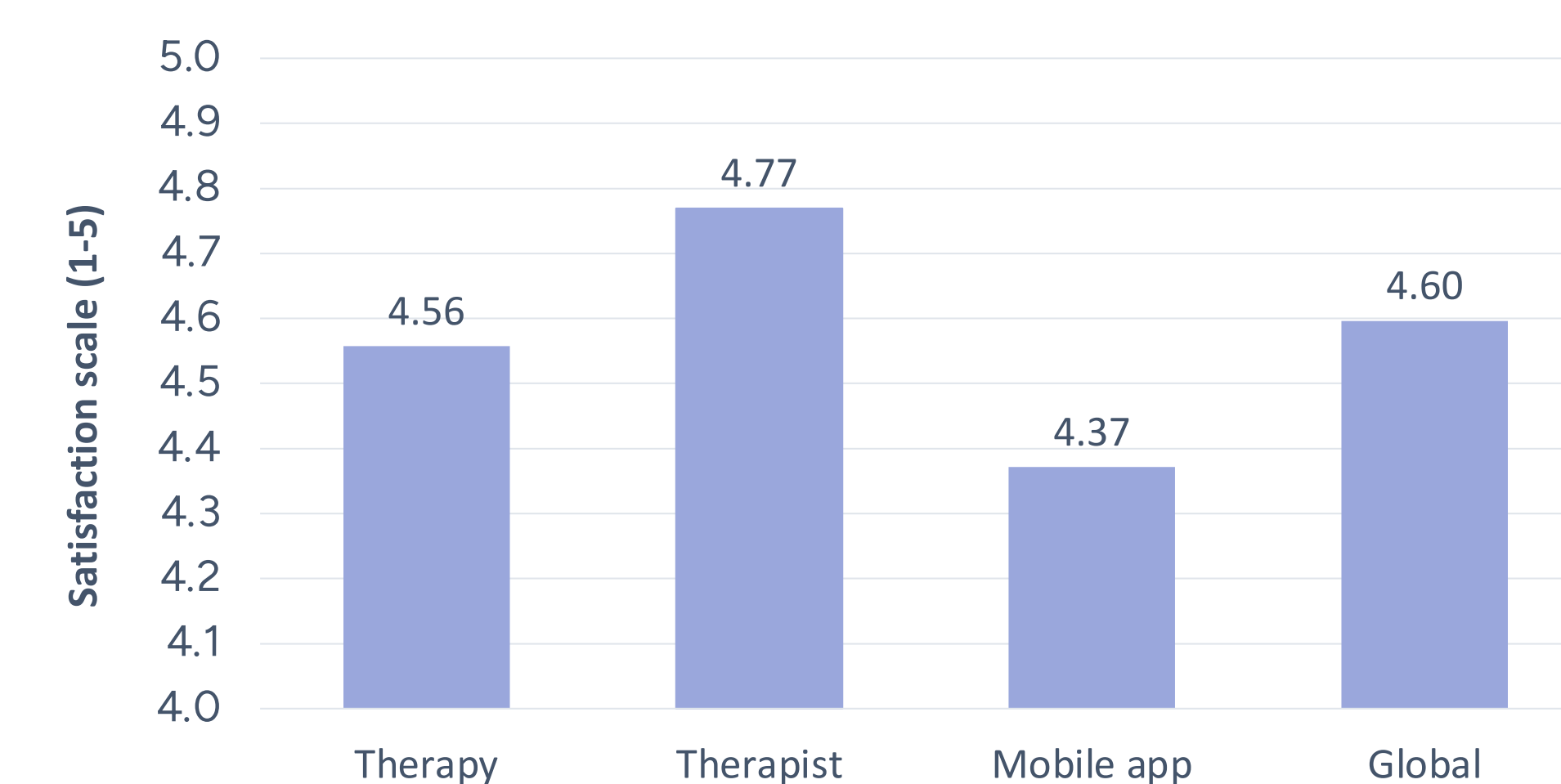
Results

Paired Samples T-Test

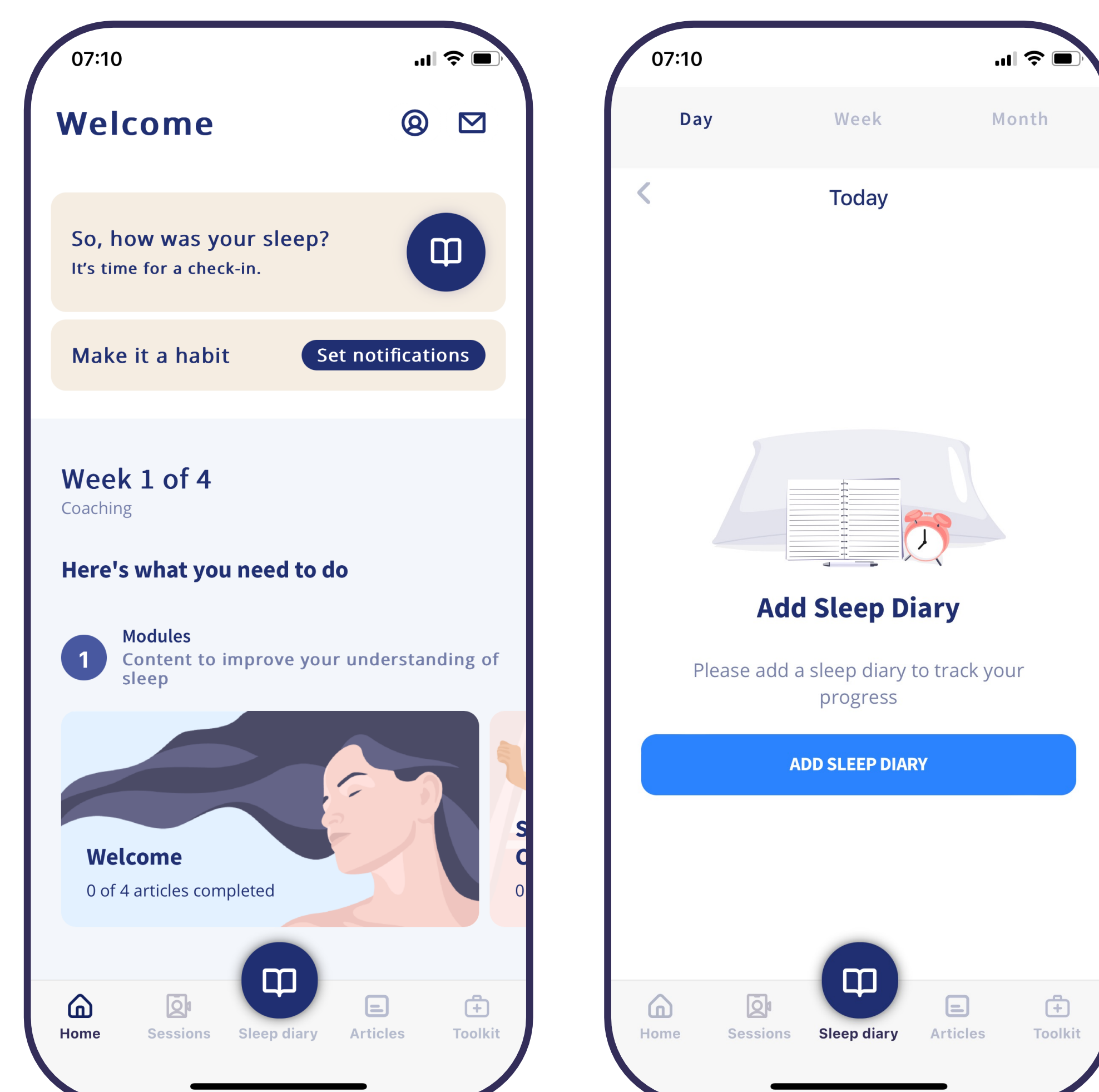
Measure 1	Measure 2	t	df	p	Cohen's d
Pre-ISI	Post-ISI	10.130	69	<.001	1.1211
Pre-HADS A	Post-HADS A	3.162	69	0.002	0.378
Pre-HADS D	Post-HADS D	5.234	60	<.001	0.626

Note. Student's t-test.

Post-Program Satisfaction Measures

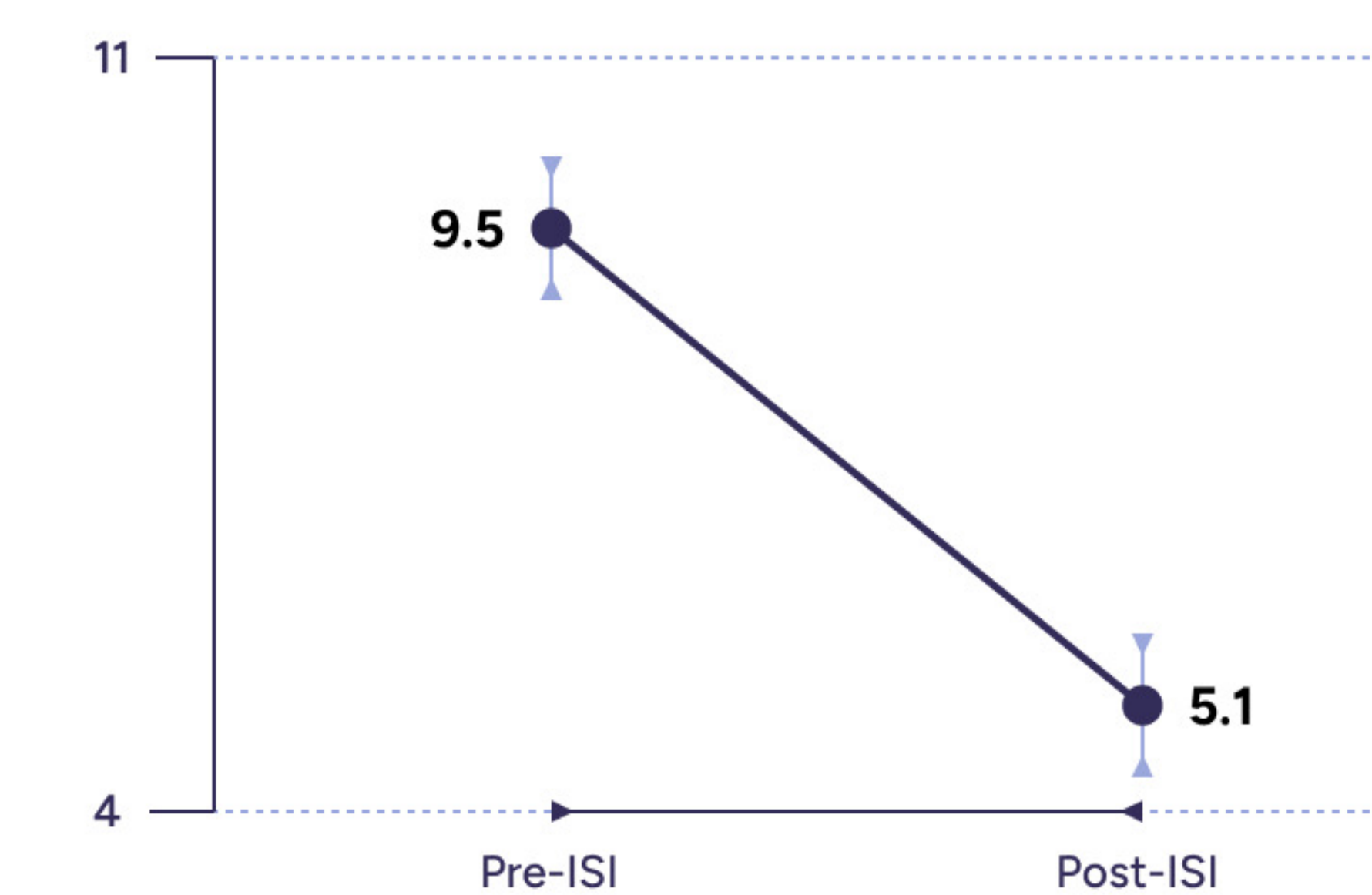


Mobile App



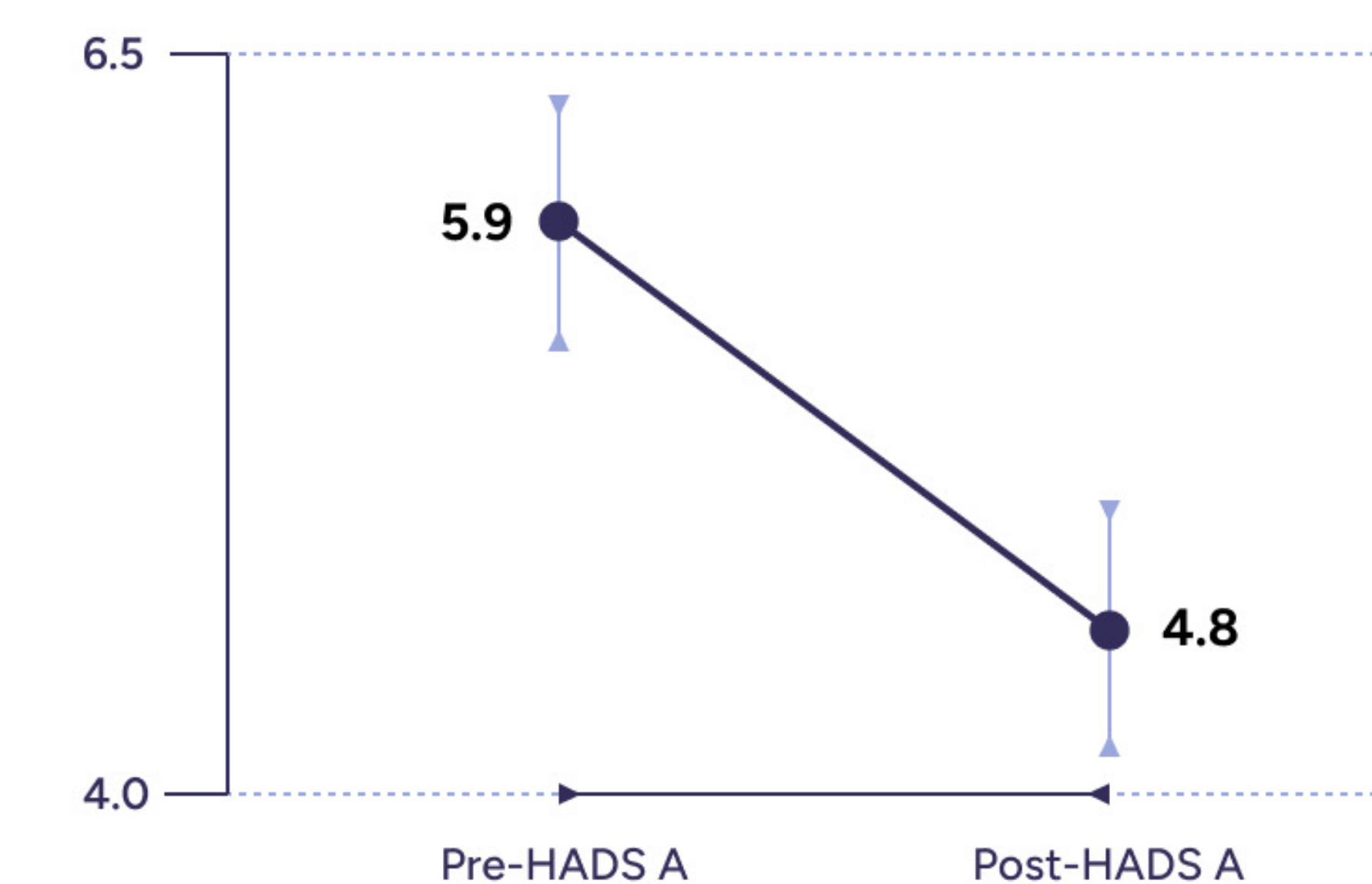
Insomnia Symptoms

Pre-ISI - Post-ISI



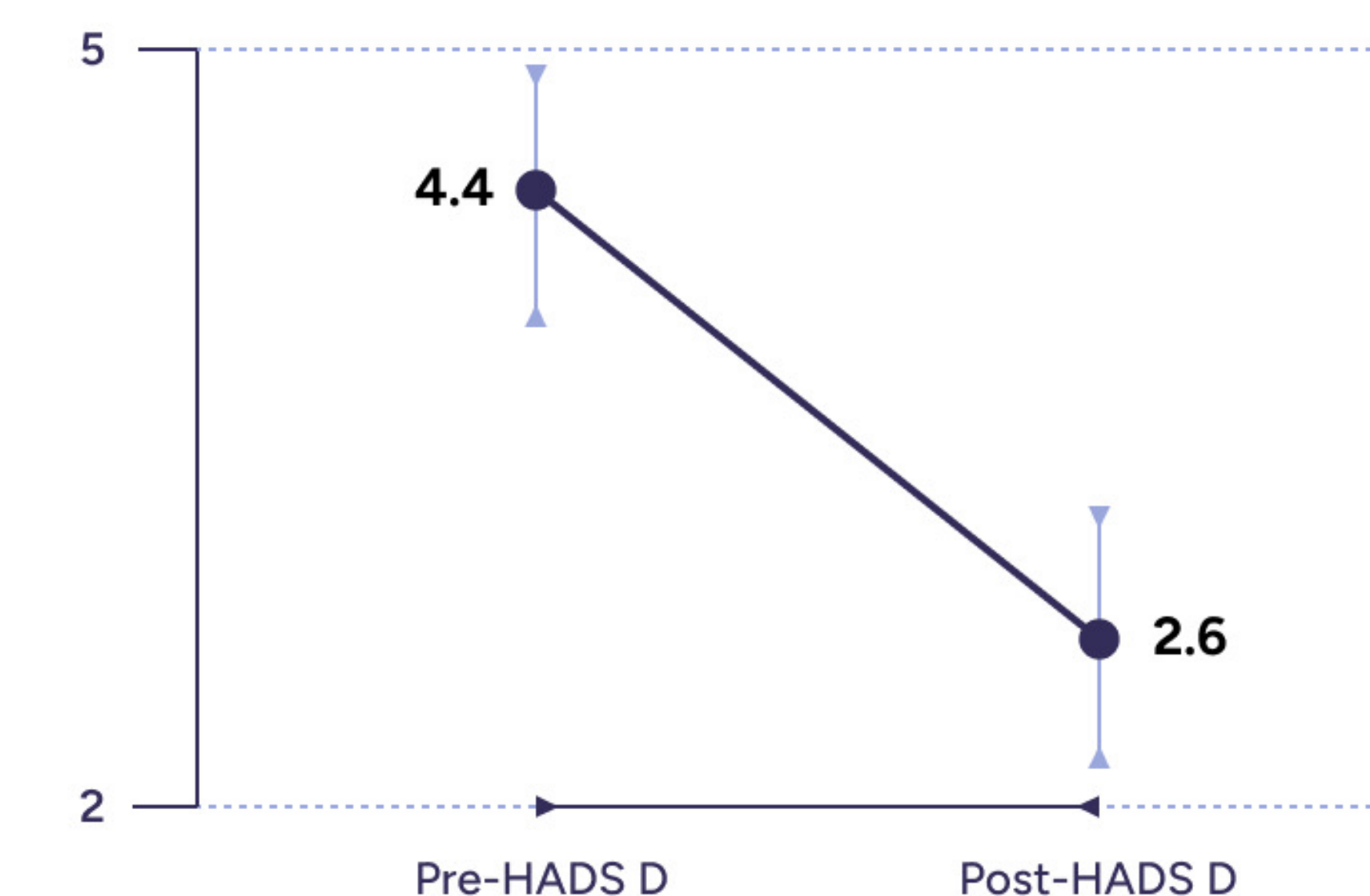
Anxiety Symptoms

Pre-HADS A - Post-HADS A



Depression Symptoms

Pre-HADS D - Post-HADS D



Discussion

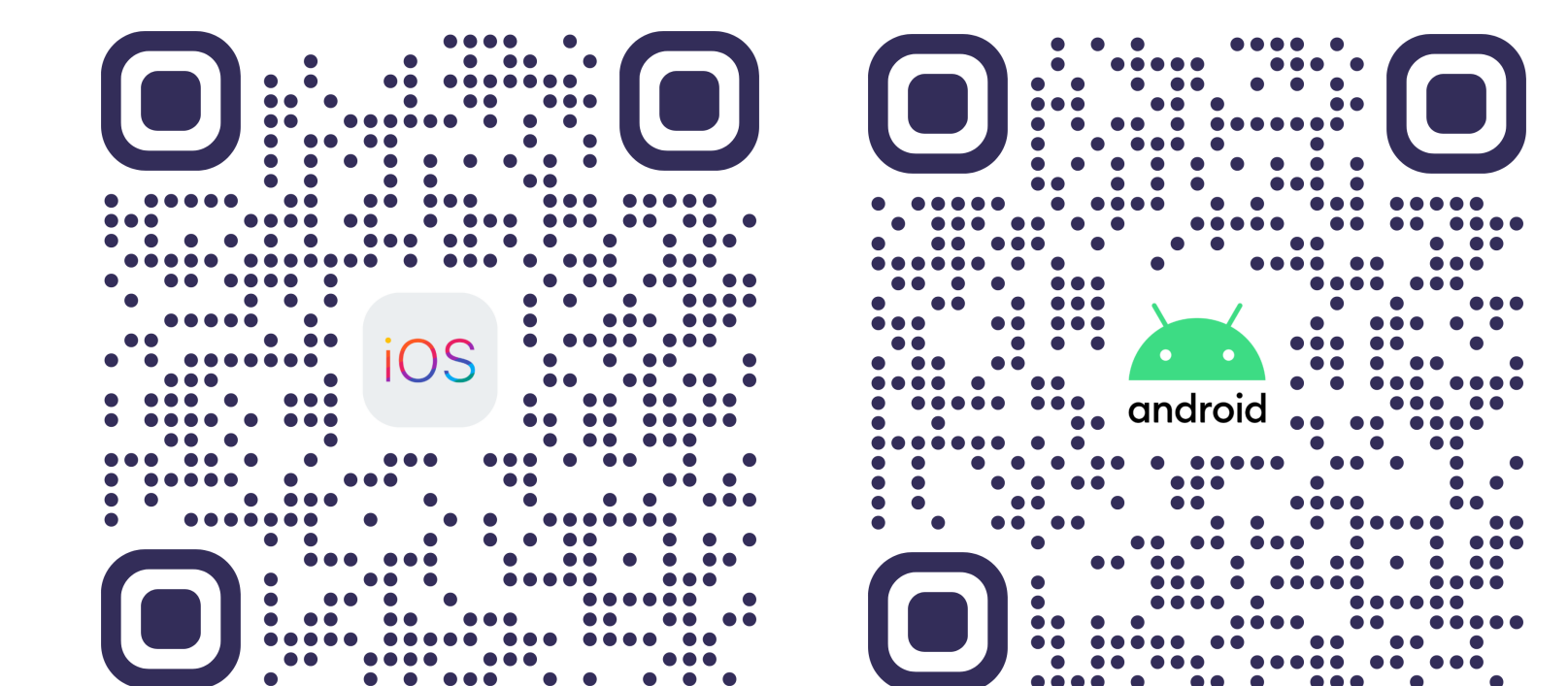
Telehealth-based sleep interventions, especially digital CBT-I, have been shown to be a highly effective treatment modality. However, this level of sleep care generally targets a relatively small portion of the population whilst poor sleep is a very common complaint.

Brief, personalizable and accessible interventions delivered through a digital platform show promise in improving sleep and psychological well-being in the general population. Such a scalable approach to sleep health may have applications for the prevention of insomnia and its adverse outcomes.

Conclusion

A CBT-I-centered **sleep optimization program** delivered through video-conferencing and supported by a digital platform can be effective in **reducing the severity of self-reported symptoms of insomnia, anxiety and depression** in adults without chronic insomnia.

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References

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