

Digital Cognitive Behavioural Therapy Treatment for Insomnia, Nightmares, and Posttraumatic Stress Disorder Symptoms in Survivors of Bushfires: Pilot Randomised Feasibility Trial



Natural
Hazards
Research
Australia

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The trauma of bushfires leads to the development of sleep and trauma symptoms. Accessing mental health services in communities subjected to natural disasters is challenging. Therefore, a brief, digital, self-paced intervention was developed to ensure timely access to treatment.

Background

Insomnia, nightmares and PTSD are highly prevalent in bushfire survivors. In a sample of 126 participants, 49.2% of the sample reported clinical insomnia, 28.7% reported nightmares, and 77.88% reported PTSD symptoms.¹ Research suggests that treating sleep disorders in parallel with trauma symptoms leads to better outcomes in terms of both improved sleep and also reduced trauma symptoms.²

Digital therapies are becoming more popular and are in high demand given the shortage of well-trained psychologists particularly in remote locations. Sleep Best-i is a digital, self-paced intervention that has been specifically designed for the treatment of insomnia, nightmares and PTSD in bushfire survivors.

Method

In total, 30 survivors of bushfires were allocated to either the treatment group (n=16, 53%) or the waitlist control group (n=14, 47%) in a sequential manner. Participants' ages ranged from 18 to 79 years, with a mean age of 52.50 (SD 16.26) years. The cohort consisted of 63% (19/30) female and 37% (11/30) male participants.

The intervention

Sleep Best-i is a 6-module treatment: (1) Psychoeducation about sleep, (2) sleep scheduling, (3) cognitive restructuring, (4) Trauma, PTSD and flashbacks, (5) Nightmares, and (6) Relapse prevention.

Results

This study used intention-to-treat analysis as a primary analysis and per-protocol analysis as a secondary analysis.

Figure 1. Change in primary outcomes (ISI, NDI, PCL) over time

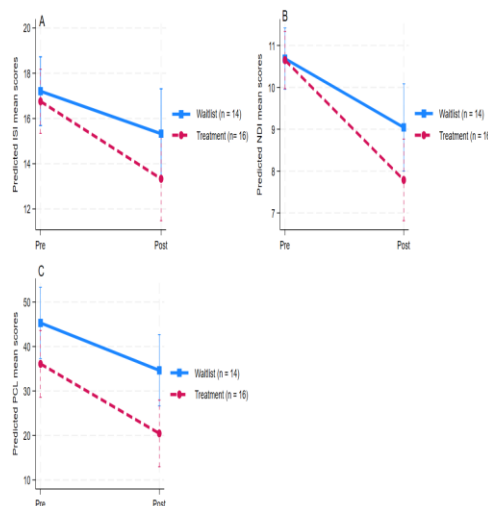


Figure 1 shows that the intention-to-treat analysis revealed significant improvements from pre- to post-treatment (main effect of time), with a 1.64-point reduction ($P=.001$) on the Nightmare Disorder Index (NDI)³, and 10.64-point reduction ($P=.009$) on the PTSD Checklist for DSM-5 (PCL-5)⁴ at the postintervention time point. No significant changes were observed in insomnia symptoms as measured by the Insomnia Severity Index (ISI)⁵. However, at the 3-month follow-up assessment, insomnia, nightmares, and PTSD symptoms were significantly reduced. The per-protocol analysis revealed similar results.

Conclusion

Digital, self-paced sleep interventions can be a viable alternative when mental health services are inaccessible.

References

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