

Those who will receive Sleep Best-i treatment will likely experience a reduction in symptoms of insomnia, nightmares and PTSD compared to those in the waitlist group



Natural
Hazards
Research
Australia

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The treatment of insomnia, nightmares and PTSD in bushfire survivors using an online intervention: A pilot study

Bushfires result in injury and loss of human lives, disruption to community cohesion, safety and wellbeing, and displacements of entire communities.¹ They also lead to an increased prevalence of mental health disorders such as depression, anxiety, post-traumatic stress disorder (PTSD), and sleep disorders.²

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.³ 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.⁴

The COVID-19 pandemic changed the way we receive and provide health care. 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

Fifty adult participants from Australia, Canada and the USA will be recruited for this pilot study. Twenty five participants will receive Sleep Best-i over a four-week period, and 25 will be in the waitlist group.

Participants will provide demographic information and will also complete the following scales: (1) The Insomnia Severity Index (ISI)⁵, (2) The Nightmare Disorder Index (NDI)⁶, and (3) The PTSD Checklist – Civilian Version (PCL-5)⁷.

Recruitment

Participants will be recruited via a Facebook campaign, bushfire interest groups, Instagram, Reddit, LinkedIn, and snowballing method.

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.

Conclusion

Digital self-paced interventions are likely to benefit thousands of wildfire survivors. They can also meet the needs of the individual by increasing self-governance, increasing personal responsibility towards therapy, and by providing more privacy.⁸ This will reduce both the burden of sleep disturbances and the subsequent development of serious psychopathology in communities affected by bushfires.⁴



References

1. Berry, H. L., Bowen, K., & Kjellstrom, T. (2010). Climate change and mental health: a causal pathways framework. *International journal of public health, 55*, 123-132.
2. Agyapong, V. I., Juhas, M., Omege, J., Denga, E., Nwaka, B., Akinjise, I., ... & Greenshaw, A. (2021). Prevalence rates and correlates of likely post-traumatic stress disorder in residents of fort mcmurray 6 months after a wildfire. *International Journal of Mental Health and Addiction, 19*, 632-650.
3. Isaac, F., Toukhsati, S. R., Klein, B., DiBenedetto, M., & Kennedy, G. A. (2023). Prevalence and Predictors of Sleep and Trauma Symptoms in Wildfire Survivors. *Sleep Epidemiology, 3*, 100052.
4. Colvonen, P. J., Straus, L. D., Stepnowsky, C., McCarthy, M. J., Goldstein, L. A., & Norman, S. B. (2018). Recent advancements in treating sleep disorders in co-occurring PTSD. *Current psychiatry reports, 20*, 1-13.
5. Bastien, C. H., Vallières, A., & Morin, C. M. (2001). Validation of the Insomnia Severity Index as an outcome measure for insomnia research. *Sleep Medicine, 2*(4), 297-307.
6. Dietch, J. R., Taylor, D. J., Pruiksmas, K., Wardle-Pinkston, S., Slavish, D. C., Messman, B., ... & Kelly, K. (2021). The Nightmare Disorder Index: development and initial validation in a sample of nurses. *Sleep, 44*(5), zsa254.
7. Weathers, F.W., Litz, B.T., Keane, T.M., Palmieri, P.A., Marx, B.P., & Schnurr, P.P. (2013b). The PTSD Checklist for DSM-5 (PCL-5). Scale available from the National Centre for PTSD.
8. Gieselmann, A., & Pietrowsky, R. (2019). The effects of brief chat-based and face-to-face psychotherapy for insomnia: a randomized waiting list-controlled trial. *Sleep Medicine, 61*(1), 63-72.
9. Babson, K. A., & Feldner, M. T. (2010). Temporal relations between sleep problems and both traumatic event exposure and PTSD: a critical review of the empirical literature. *Journal of Anxiety Disorders, 24*(1), 1-15.

Further information

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