



Proposal for an Australian general practice digital insomnia management pathway

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Sleep Health Foundation

The Sleep Health Foundation is Australia's leading advocate for healthy sleep in the community. It is guided by Lived Experience experts. It aims to improve people's lives by promoting sleep health, raising awareness of sleep disorders and building partnerships with organisations with complementary objectives. It includes a research and industry collaboration committee which is a continuation of the legacy structure from the Alertness Cooperative Research Centre (2013-2020), comprised of stakeholders involved in the development and deployment of innovative solutions to improve workplace productivity and safety. The Foundation collaborates with a range of health information stakeholders such as Health Direct to amplify their messages.

Australasian Sleep Association

The Australasian Sleep Association is the peak scientific body in Australia and New Zealand representing clinicians, scientists and researchers working in sleep health and sleep medicine. It is experienced in developing clinical guidelines, professional education and other services aimed at improving the quality of sleep health. The association is a current recipient of Commonwealth grant funding under the Health Peak and Advisory Bodies program to provide evidence-based sleep health and sleep medicine information to assist with informing Australian Government policy. This program and another grant under the Quality Use of Medicines, Diagnostics and Therapeutics Program have a focus on supporting the goals of the National Preventive Health Strategy 2021-2030, particularly in relation to education and training of primary health care practitioners in sleep health.

The Foundation and the Association are long-time collaborators, having worked together on the Parliamentary Inquiry into Sleep Health Awareness in Australia and other communication and advocacy work to improve the sleep health of all Australians.

Introduction

This proposal is presented by the Australasian Sleep Association and the Sleep Health Foundation. It sets out a new management pathway for insomnia that supports the four main health system outcomes set out in Australia's National Digital Health Strategy 2023-2028 – digitally-enabled, person-centred, inclusive and data-driven. The proposal is also well aligned with the goals and strategies set out in the Digital Health Blueprint 2023-2033.

Insomnia

Chronic insomnia occurs in over 3 million Australian adults. It impacts Australians of all ages, genders, occupations and geographical locations. Untreated insomnia substantially increases an individual's risk of developing depression, anxiety, and hypertension, and their likelihood of experiencing motor vehicle accidents, sickness absenteeism, and reduced quality of life.

Insomnia costs Australia [\\$19.1 billion](#) annually in healthcare, productivity and quality of life expenses.

Cognitive Behavioural Therapy for insomnia (CBTi) is the recommended 'first line' treatment for all people with insomnia. In fact, the latest European [insomnia management guidelines](#) emphasise that "Cognitive behavioural therapy for insomnia is recommended as the first-line treatment for chronic insomnia in adults of any age (including patients with comorbidities), *either applied in-person or digitally*" (emphasis added).

CBTi leads to large and sustained improvements in sleep, depression, anxiety, daytime function, and quality of life. Due to the considerable impact of untreated chronic insomnia on workforce productivity, effective treatment can have major general economic benefits, in addition to benefits to the health system.

Despite overwhelming evidence for the effectiveness and safety of CBTi, only 1% of Australians with insomnia access this 'first line' treatment.

This low rate of uptake is driven by several factors, including low engagement from the public with health care professionals to seek diagnosis/treatment, limited availability of CBTi and gaps in knowledge of effective models of digitally integrated healthcare for insomnia in the Australian context.

Instead, 90% of people with insomnia in Australian primary care are managed with potentially addictive sedative-hypnotic medicines (e.g., benzodiazepines) that are known to have adverse side effects such as an increased risk of falls and impairment the following day.

Solution

The Australasian Sleep Association is working closely with the RACGP and the Australian Psychological Society to provide CBTi training to clinicians. But despite these efforts, health professionals will never be able to meet the needs of the more than 3 million Australians with chronic insomnia in the short or long term. The primary health care system is stretched, and GPs have expressed a need for equitable and easily accessible solutions for their patients (see Testimonials section below).

CBTi programs have been translated to interactive digital programs that are supported by [high-quality scientific evidence](#). Importantly, digital CBTi programs are rapidly scalable, and can be accessed in rural/remote locations, and outside routine clinic hours. The value and effectiveness of digital CBTi programs have been recognised in the United Kingdom and Germany where access is funded through the public health system.

An interactive digital CBTi program that is tailored for the Australian health system has been developed and pilot tested in Australian general practice. General practitioners provide referral to the program, track patients' progress as they follow the program in their own time, and follow up with patients in subsequent consultations. The proposal is to provide it free of charge to patients and GPs.

The program is:

- Person-centred – enabling patients to access individualised treatment at a time and place which suits them
- Collaborative – has been co-designed with consumers, both patients and general practitioners, to provide evidence-based treatment in an accessible format (see Testimonials section below)
- Accessible – enables equitable access to CBTi, including for remote and rural patients, bypassing the current geographical barriers which exist with clinician-delivered CBTi, and
- Effective – randomised controlled trials have demonstrated a [50% improvement in insomnia severity](#), [50% improvement in depression](#), and [40% improvement in anxiety and fatigue](#).

Commercially-available digital CBTi products also exist, and in some cases are available to Australian consumers, which may be leveraged as a part of this proposal.

Proposal

We propose a two-year general practice digital CBTi implementation trial in two selected Primary Health Networks (PHN) – one rural and one metropolitan. The purpose of the trial is to:

- refine the digital CBTi program through additional co-design with GPs and consumers
- define and refine the model of care for providing digital CBTi through general practitioners
- further refine the program and model of care based on lessons from the trial
- determine a pathway to effective large-scale uptake of the program to meet the needs of patients with chronic insomnia across Australia.

The proposed trial will be overseen by a steering committee including representatives from the Australasian Sleep Association, Sleep Health Foundation, general practitioners, technical experts and people with lived experience of insomnia. The trial will include iterative feedback and co-design involving patients and GPs, to identify and overcome barriers to the uptake of the program and refine the digital patient interface as needed to optimise larger-scale implementation.

Phase 1

The first phase will extend previous work to empower Australians to manage their insomnia and navigate the relevant health system, ensuring at all stages that their story follows them.

We will undertake a series of workshops, including healthcare professionals, patients, IT, health system and academic experts to co-design a model of care for integration of digital CBTi into Australian primary care. This will build on international best practice examples of successful implementation of digital CBTi into primary care, and will include a component to identify refinements to the program itself that will support higher uptake by GPs and consumers.

We will also build on existing resources to co-design a targeted public education program delivered in the selected PHNs, aimed at motivating patients to seek support for their insomnia, and to educate them about their choices in management approach.

Cost estimate: \$850,000

Phase 2

This phase will engage the health workforce (primary care, tertiary care, allied health) to ensure that they are digitally empowered to provide connected, real-time care for insomnia.

We will implement a comprehensive health practitioner education program in the selected PHNs, tailored specifically for integration of digital CBTi into general practice. There will also be a public education campaign in the selected PHNs to raise awareness of insomnia and encourage patient engagement with local GPs to discuss treatment and management options.

Cost estimate: \$450,000

Phase 3

This phase will involve technical integration of the data systems from the insomnia digital CBTi program into existing GP health management systems, to ensure that data and information are shared and reused securely to deliver a sustainable learning health system.

Cost estimate: \$750,000

Phase 4

This phase will involve implementation and evaluation of the digital intervention program, according to best practice implementation science principles and an established evaluation framework.

It will also include any required additional refinement of the program or systems to support a large-scale rollout of the model of care across Australia.

Cost estimate: \$600,000

These four proposed phases are estimated to cost a total of \$2.65 million over two years.

Digital CBTi has the potential to have a profound impact on the sleep health and subsequent physical and mental health of the Australian population. It is essential that implementation of any such therapy be done in a structured and systematic way with co-design input from consumers and other stakeholders. This proposed implementation trial in selected PHNs will create a blueprint for how digital technology can be upscaled to benefit the entire Australian population as per the digital health strategy.

Capability

The longstanding partnership between the Sleep Health Foundation and the Australasian Sleep Association will support effective delivery of this proposed implementation trial. Each organisation's strengths and track record will work together to deliver all components of the proposed project.

The Sleep Health Foundation has a strong track record in advocacy and public sleep health education activities, including a comprehensive range of patient information about many aspects of sleep health. Its Lived Experience Committee is made up of people with lived experience of a range of sleep disorders including insomnia and this will be an important resource for co-design work and other advisory functions. The Sleep Health Foundation will also undertake the public education activities in Phase 2 of the trial.

The Australasian Sleep Association has developed educational resources and programs for health care practitioners about insomnia and its management, including those developed as part of the Health Peak Advisory Bodies (HPAB) and Quality Use of Medicines, Diagnostics, Therapeutics and Pathology (QUDTP) for insomnia government grants. These two grant

programs focused on education and training of primary health care audiences have established strong collaborative relationships with the professional stakeholders and project partners who will be important to the success of the proposed implementation trial. These include the RACGP, Primary Health Networks (PHNs) and people with lived experience of insomnia.

Testimonials

Feedback from GPs

“The digital CBTi pathway is an excellent resource. From a GP perspective, it is wonderful to be able to refer patients with chronic insomnia to the program, knowing that they will receive the **appropriate evidence-based treatment**, and that I will be able to **reinforce the concepts learnt at follow up appointments**. My patients have appreciated the benefits of the program, including that it is free, convenient, user-friendly and supportive. This has improved their motivation to address what is often a longstanding problem with therapy rather than medication. This program fills a void in referral pathways for chronic insomnia treatment in Australia, and I sincerely hope that it continues to be available to GPs and their patients.”

“The evidence is very strong for CBTi programmes **and they are not equitably accessible to patients**. Some are quite expensive. I live and work in a remote community and so there is no option for face to face provision of this type of CBT. This particular service has a quick referral pathway from the GP which I think aids uptake and provides feedback on the patients’ outcomes. I am therefore able to tell if a patient has progressed with a referral and reinforce the benefits of continuing with the programme. I think it should be more readily available and would reduce the dependence on benzodiazepines and means I can offer something evidence based to assist my patients.”

“The digital CBTi programme, has been of great help to me and my patients. Insomnia is a **surprisingly common problem** for many people in our society, which has a huge impact on their wellbeing and productivity. Once relevant lifestyle issues have been addressed, it is so empowering to have a free online evidence-based programme to refer patients to. My patients have found it straightforward to use and benefited greatly with outcomes of better understanding and quality of sleep.”

“I think being able to refer patients to your digital CBTi program has been invaluable. Often patients come in and poor sleep might be the last thing they bring up, hoping to get a prescription for medication and then be on their way. By then, there’s no time to talk in detail about their sleep. So being able to suggest to patients there is also CBTi which they can do at home, in their own time, once a week for a few weeks is **very attractive** to both me in helping patients with their sleep and also patients as it is not a huge imposition on their time. It has been helpful for the majority of my patients. I think allowing this free service to continue would benefit both patients and doctors.”

Feedback from patients

“This is such an important resource. It has been **game changing** for me, and is **REALLY needed**. I feel GPs are only equipped to prescribe meds to help with persistent sleep issues, so this sort of treatment is only available if you do your own research, and ask for it. The current online options for CBI-T are quite expensive, so immediately puts people off (unless they really believe it will work!!). My sleep hasn't been perfect, but I can honestly say I feel more in control of my own destiny when it comes to sleeping. I no longer freak out if I have a bad night and run back to the meds.”

“I am so thankful for this great sleep program. I was getting so desperate at times and hated the thought of going to bed and wondering what sort of night I would have. I have never looked so forward to going to bed; and feeling so tired.”

“I am very grateful I was able to participate in this program as I feel it has definitely improved my sleep and I feel I do have the tools to continue to adjust my bedtime window and rehabilitate my sleep should I need to in the future.”

“I really like how **simple** it is - not overwhelming with information, clear and easy to understand.”

I found the program to be extremely helpful. Explanations were **clear and simple** and I was not overburdened by unnecessary detail. Repetition of key points in subsequent sessions was important to reinforce key concepts.”

“It has been a great program. The concept of sleep pressure is interesting and makes sense. The program is **easy to use**. Short enough yet informative and I really like the use of different presenters mixed with graphics to explain concepts. It is a well put together program.”

“This is a great program. The staged way the information is presented means you learn a lot about sleep and insomnia and how to improve your sleep routine. The combination of the sleep diary and personalised suggestions **works well**. The videos and follow-up information via email both present key information in a clear and easy to understand format.”

“This was really tremendous. I really feel that my sleep has improved and certainly my **stress** surrounding it has decreased, which has probably improved my sleep as well. I also feel like I have to tools to tackle any insomnia if it pops up again.”

“Excellent sessions, information and I'm sincerely grateful to have been chosen to be part of this course, it has **helped me immensely** and I have learned much throughout and you have provided me the tools to continue to do so. I loved the professionalism and how this came together online, too easy for us end-users. Keep up the good work as insomnia has become an epidemic yet, with these tools and advice, it doesn't need to be so. I think for me, it's a change of my mindset and habits have done me the world of good, I'm excited to go to bed now, thanks again”.

