

Quality Use of Medicines for Insomnia and Sleep Health Project Summary

National education program for pharmacists

Funded by the Australian Government under the
Quality Use of Diagnostics, Therapeutics
& Pathology program



Australasian
Sleep
Association

November 2025

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Executive Summary

Sleep health underpins overall health and wellbeing. Inadequate and poor quality sleep is a risk factor for many conditions listed as National Health Priority Areas, including cardiovascular disease, diabetes, mental illness, and obesity. Insomnia is the most common sleep disorder in Australia, with 30-50% of adults



experiencing insomnia symptoms at any given time, and 10-15% meeting diagnostic criteria for chronic insomnia disorder¹⁻³. These symptoms contribute to significant daytime impairment, reduced quality of life, and increased healthcare utilisation⁴.

Australian and international guidelines strongly recommend Cognitive Behavioural Therapy for insomnia (CBTi) as the first-line treatment⁵⁻⁸. However, most Australians with insomnia are managed with pharmacological approaches. Up to 90% of insomnia management in primary care involves sedative-hypnotic medications⁹, despite their limited long-term efficacy and potential for dependence. In contrast, only

1-3% of patients access CBTi, highlighting substantial evidence-practice gaps in insomnia management^{9,10}.

Pharmacists are among the most accessible primary healthcare professionals in Australia, and they are frequently approached by consumers seeking advice about sleep difficulties and sleep aids¹¹. Their pivotal role in promoting the quality use of medicines (QUM) positions them ideally to support safe and effective management of insomnia. However, previous studies show that pharmacists often lack the confidence, training, and practical tools to provide non-pharmacological guidance or to engage in deprescribing conversations¹¹.

The **Quality Use of Medicines in Insomnia and Sleep Health (QUMISH; 2023-2025)** program was funded by the Australian Government under the Quality Use of Diagnostics, Therapeutics and Pathology program. It was established to address these gaps by developing, implementing, and evaluating an evidence-based sleep health education and behaviour-change initiative for Australian pharmacists. Drawing upon established educational frameworks and the extensive experience of the Australasian Sleep Association (ASA) in sleep health education for general practitioners, psychologists, and nurses, this program aimed to strengthen interdisciplinary collaboration and promote best-practice, evidence-based care for insomnia across Australian primary care.

This program addresses recommendation 9 of the 2019 Parliamentary Inquiry into Sleep Health Awareness in Australia (www.aph.gov.au/SleepHealth); assessing current knowledge levels of primary healthcare practitioners in relation to sleep health, and developing effective training mechanisms to improve the knowledge in managing sleep health problems.

The education program recorded over 13,624 engagements with pharmacists attending in-person events, online events, completing modules and CPD-accredited article follow-up questions (see Figure 6). Feedback from participating pharmacists suggests the education program had a positive impact on increasing knowledge and confidence as well as influencing professional practice. Participants valued interactive formats, interdisciplinary delivery and the evidence-based approach.

Stacey Putland
QUMISH Project Manager
Australasian Sleep Association

Governance & partners

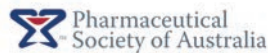
Consortium Partners

Australasian Sleep Association (ASA, lead organisation)

Sleep Health Foundation (SHF)

Pharmaceutical Society of Australia (PSA)

University of Sydney (USYD)



Steering Committee

The Steering Committee met every two months throughout the project to direct, advise and oversee project operations, monitor project progress, prioritise activities, check project performance against stated measures, monitor project spend against stated budget and mitigate risks as they arose.

Stacey Putland	ASA Project Manager and Pharmacist
Dr Alexander Sweetman	ASA Senior Program Manager
Marcia Balzer	ASA CEO
Prof Garun Hamilton	ASA President and Sleep Physician
Prof Sutapa Mukherjee	ASA Past President and Sleep Physician
Dr Moira Junge	CEO Sleep Health Foundation and Health Psychologist
Prof Bandana Saini	University of Sydney Academic Pharmacist
Dr Janet Cheung	University of Sydney Academic Pharmacist
Chris Braithwaite	PSA Project Manager and Pharmacist

Stakeholder Group

The Stakeholder Group met four times throughout the project to co-design and test key project concepts and deliverables, and provide feedback on implementation and evaluation processes.

Tim Perry (NSW)	GP Practice Pharmacist
Karalyn Huxhagen (QLD)	Consultant and Community Pharmacist
Shane Downie (VIC)	Community Pharmacist
Dr Jacinta Johnson (SA)	Academic Pharmacist
Dr Linda Schachter (VIC)	Sleep Physician
Dr Erin Oldenhof (VIC)	Benzodiazepine Withdrawal Counsellor and Psychologist
Prof Nigel Stocks (SA)	General Practitioner, RACGP Representative
Casey Franchi (SA)	Practice Nurse
Ashleigh Crisafi (VIC)	Lived experience
Ingrid Howley-Hoffman (SA)	Lived experience

Consortium partner statements



Marcia Balzer, CEO, Australasian Sleep Association

The achievements of our consortium for this project speak for themselves. It has been an absolute privilege for the Australasian Sleep Association to lead this project, and its success demonstrates the value of the combination of strategic funding, collaboration and cross-sectoral collective action to make a significant change in how healthcare is delivered in Australia. The evidence base is significant for the central role of sleep health in all aspects of physical and mental health.

There is still a great deal of work to do to help healthcare providers understand and leverage better sleep health for better overall health. This collaborative and collective approach shows enormous promise as a way of addressing the current gaps and improving the health of Australians more broadly.



Moira Junge, CEO, Sleep Health Foundation

Being a partner organisation on this QUMISH grant was a resounding success. It delivered impactful outcomes which will have some legacy and utility into the immediate future including the development of the Sleep Health Action Plan. It significantly boosted public and professional awareness of the role pharmacists can play in insomnia and sleep health. Most rewarding of all was that the program fostered meaningful collaboration across a diverse range of stakeholders, which

included consumers, researchers, health professionals, and peak bodies. This initiative exemplified how strategic funding and cross-sector engagement can contribute to driving real change in public health.



Chris Braithwaite, Project Manager, Pharmaceutical Society of Australia

QUMISH has exemplified the impact of strategic collaboration, bringing together the PSA's national reach and pharmacy expertise with ASA's deep knowledge of sleep health. This partnership enabled the delivery of high-quality, evidence-based insomnia education to over 13,000 pharmacists—nearly quadrupling the original target. Through joint webinars, workshops, and publications, pharmacists were

empowered to learn about and adopt non-pharmacological approaches like CBTi and more effectively initiate deprescribing conversations. The success of QUMISH highlights how aligned peak bodies can drive scalable, meaningful change in healthcare practice, positioning pharmacists as key contributors to sleep health and reinforcing PSA's leadership in quality use of medicines.



Bandana Saini, Professor, University of Sydney Pharmacy School

The QUMISH grant provided an exceptional platform to translate nearly a decade of research on pharmacy-based sleep health services into real-world impact through initiatives such as the Sleep Health Action Plan. The collaboration brought together peak pharmacy and sleep health organisations alongside consumer groups, amplifying the reach of sleep health education far beyond what could be achieved in a traditional research setting.

Beyond its primary goal of educating pharmacists, QUMISH generated broader outcomes, including increased awareness among consumers and other health professionals of the pharmacy profession's capacity to address public health challenges. It also demonstrated the value of scholarly inquiry to professional organisations and contributed to building research capability within their membership.

This project stands as a model of how strategic partnerships and evidence-based approaches can deliver lasting improvements in healthcare practice and public health.

Education program presenters and authors



Bree Armstrong
Pharmacist
Pharmaceutical Society
of Australia



Prof Garun Hamilton
Sleep Physician
Monash Health



Viandro Borja
Pharmacist
Alfred Health



Dr Daniel Hoyle
Pharmacist
University of Tasmania



Chris Braithwaite
Pharmacist
Pharmaceutical Society
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A/Prof Melinda Jackson
Psychologist, Researcher
Monash University



A/Prof Juanita Breen
Pharmacist
Aged Care Quality &
Safety Commission



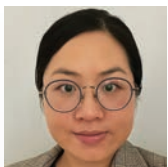
Dr Moira Junge
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Sleep Health Foundation



Dr Aimee Brown
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Todd Marion
Pharmacist
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University of Newcastle



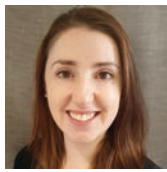
Dr Erin Oldenhof
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Reconnexion



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Registered Nurse
Macquarie University



Stacey Putland
Pharmacist
Australasian Sleep Association



Dr Chelsea Reynolds
Clinical Psychologist
Wink Sleep



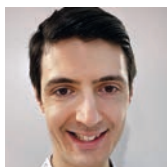
Dr Cele Richardson
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Macquarie University



Victor Senescall
Pharmacist
Aspect Health



Dr Alexander Sweetman
Sleep Program Manager
Australasian Sleep Association



Dr Daniel Sullivan
Clinical Psychologist
Griffith University

Enormous thanks to everyone who contributed to the development and delivery of the education program. We couldn't have done it without you.

QUMISH program at a glance

Figure 1.



Consumer survey

A consumer survey was co-designed with our multi-disciplinary Stakeholder Group to understand consumer experiences and expectations of insomnia management in pharmacy settings and inform the development of the education curriculum.

427 Australian adults with insomnia symptoms were recruited in March and April 2024 through the Taverner Research Group, from all states/territories of Australia and from metropolitan, rural and remote locations to represent the geographical spread of the Australian general population.

Results

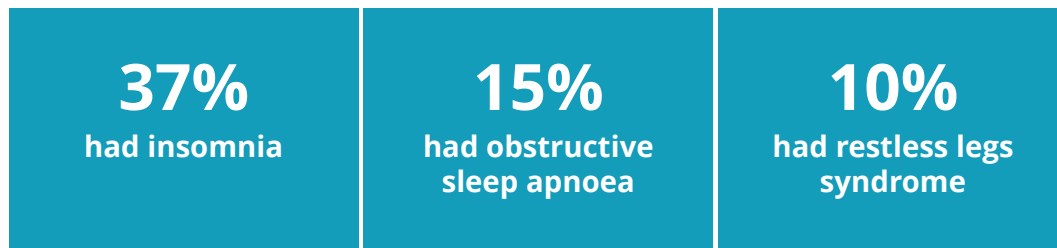


Figure 2.

Have you used any of the following treatments or devices to improve your sleep in the past year?

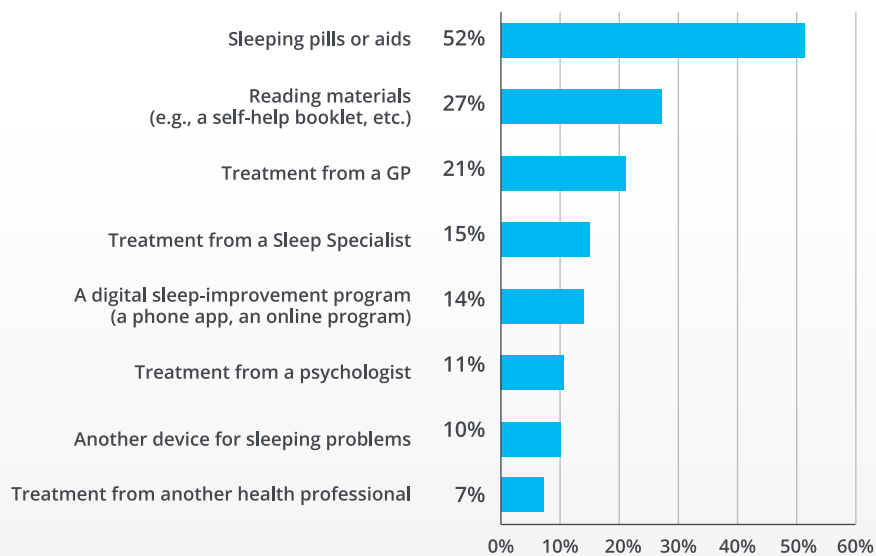


Figure 3.

Drug Classes consumers used for sleep in the last 2 weeks

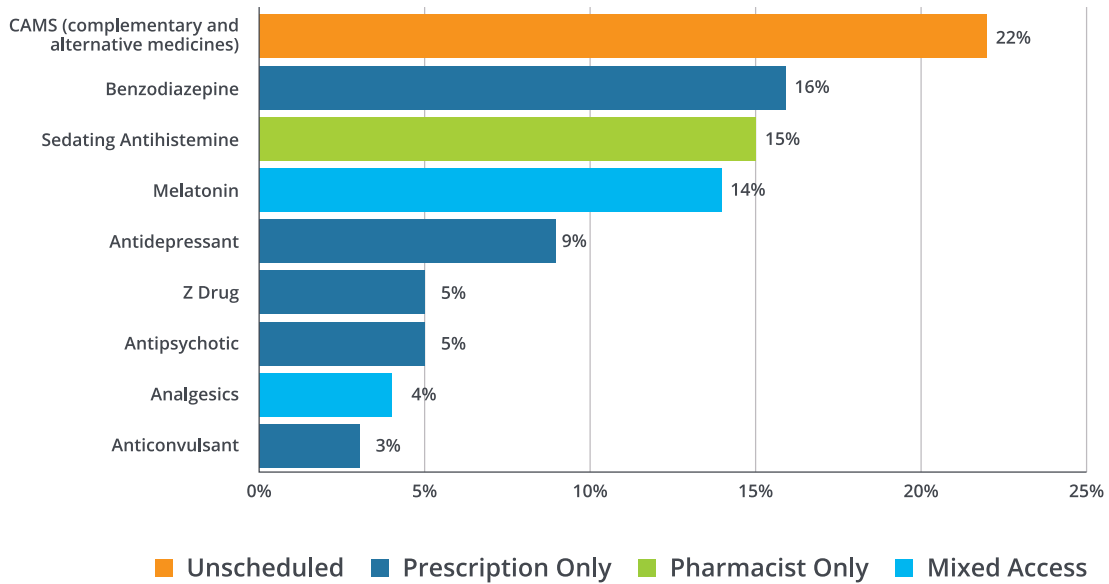
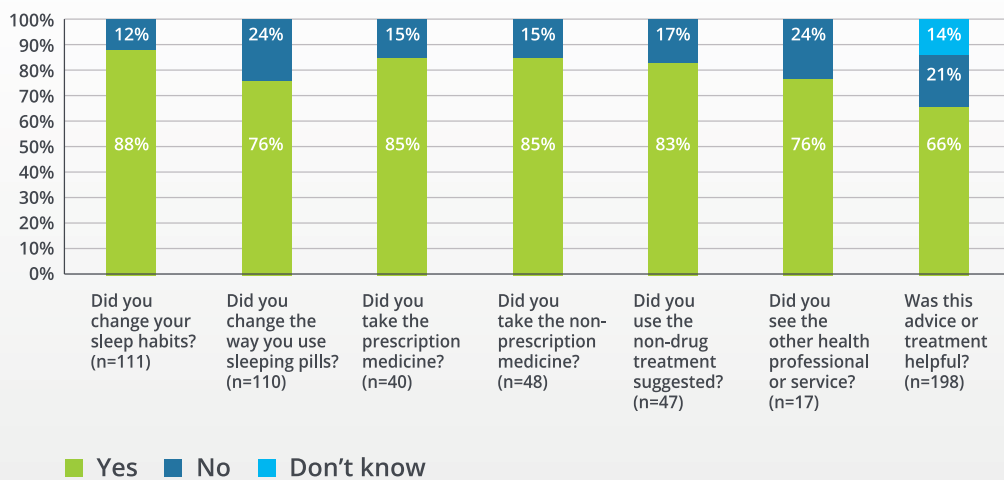


Figure 4.

Impact of pharmacy staff advice

In all cases, pharmacy staff positively influenced the majority of respondents to take action



Literature review

A literature review was undertaken adjacent to the QUMISH project to inform the development, content, and delivery of our pharmacist education program.

Exploring the pharmacist role in insomnia management and care provision: A scoping review

Mariam M. Basheti, Christopher Gordon, Ronald Grunstein, Bandana Saini

Journal of the American Pharmacists Association, Vol: 65 (1).

<https://doi.org/10.1016/j.japh.2024.102312>

Overview

Pharmacists are at the forefront of the primary care workforce and given their expanding roles in care provision, would be able to alleviate the burden of insomnia in the community by delivering evidence-based management.

This review highlights a current gap in insomnia management practices carried out by pharmacists and provide evidence for expanded roles and improved care provision when pharmacists are upskilled with specialized training/education.

Findings

Twenty-eight studies met inclusion criteria with 5 qualitative, 8 observational and 15 interventional studies. Over a third of the studies were conducted in Australia (n = 11).

Insomnia management across these studies ranged from 1) screening/assessment services (n = 5), 2) pharmacological and nonpharmacological care provision (n = 16), and 3) sedative hypnotic deprescribing services (n = 7).

It was evident that pharmacological approaches remain the most common treatment modality adopted despite guidelines recommending cognitive behavioural therapy as first-line.

The results show that with adequate training and education, pharmacists have the potential to provide insomnia screening, behavioural therapy, and pharmacological deprescribing services, improving overall insomnia management in primary care.

Baseline audit

Overview

To develop a targeted insomnia and sleep health education program for pharmacists that addressed key 'practice gaps', it was important to first understand current practice in insomnia management in Australian community pharmacy settings. We used the simulated patient method to understand pharmacists' current knowledge and management of consumers with insomnia symptoms.

The results helped to inform the development of the national insomnia and sleep health education program for Australian pharmacists, and the development of evidence-based insomnia-management resources for pharmacists and people with insomnia symptoms.

We conducted 130 simulated patient visits across Australia (April to July 2024).

Method

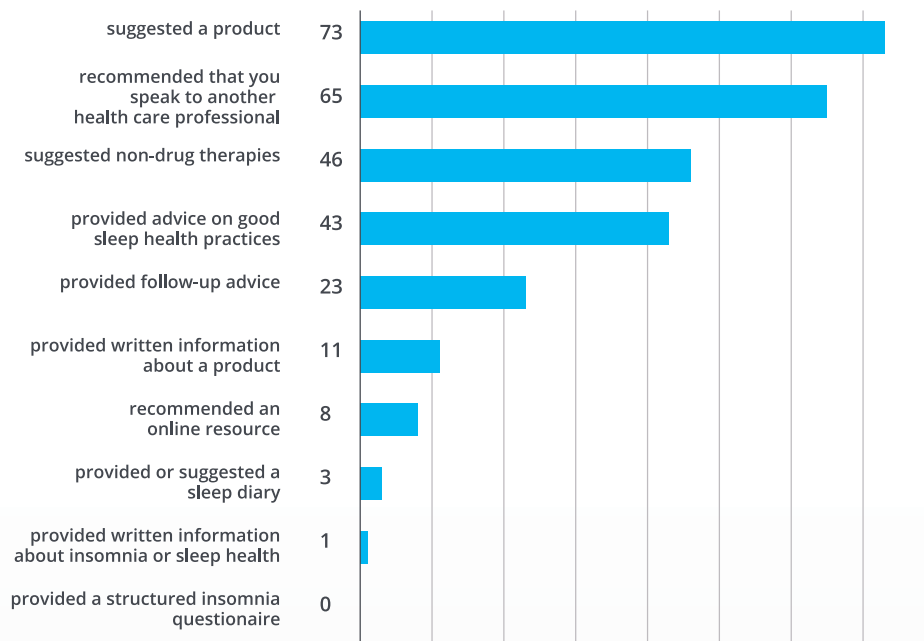
We recruited 13 research assistants from the ASA's Network of Early career Sleep researchers in Training (NEST) council. Research assistants were provided training on the simulated patient method, the semi-structured "insomnia" script and data collection form. Following a training session, each simulated patient was allocated a list of randomly selected pharmacies to visit within a catchment area covering all states/territories of Australia and both metropolitan and regional locations.

Results

Figure 5.

Simulated Insomnia Patient Study

130 simulated patient visits to randomly selected Australian pharmacies
% of pharmacists in simulated patient study who...



Enormous thanks to our research assistants: Mackenzie Bougoure, Melissa Cleary, Isabel Clegg, Morgan Chung, Nicole Grivell, Vera Kim, Samantha Lee, Laura Marriott, Lisa Matriccioni, Adrian Sinanan, Gabrielle Schaffer, Brooke Swierzbiolek, Diriba Guduma

Education program

The consumer survey, literature review and baseline audit informed the development of a comprehensive pharmacist insomnia and sleep health education curriculum.

The curriculum was delivered in collaboration with the Pharmaceutical Society of Australia, TerryWhite Chemmart, Chemist Warehouse, Pharmacy777, Charles Darwin University and the University of South Australia.

The program included a series of in-person and online workshops, conference presentations, webinars, online learning modules and Australian Pharmacist CPD articles. A team of twenty-four content experts across Australia (see pages 6-7) were involved as authors and presenters.

Figure 6. Education activities timeline

Date	Type	Host	Location	Participants	Cumulative engagement of pharmacists
2024					
April	Workshop	PSA	Adelaide	24	24
May	Conference	PSA	Cairns	266	290
May	Workshop	PSA	Hobart	16	306
May	Article	PSA		1494	1800
August	Workshop	PSA	Sydney	58	1858
August	Online workshop	PSA		42	1900
September	Article	PSA		1722	3622
September	Article	PSA		1346	4968
September	Article	PSA		1839	6807
October	Workshop	PSA	Perth	20	6827
October	Workshop	PSA	Brisbane	77	6904
October	Workshop	TWCM	Melbourne	80	6984
October	Workshop	TWCM	Brisbane	75	7059
October	Workshop	TWCM	Adelaide	62	7121
October	Workshop	TWCM	Sydney	65	7186
October	Workshop	TWCM	Perth	59	7245
October	Workshop	TWCM	Hobart	35	7280
October	Workshop	UniSA	Adelaide	70	7350
November	Webinar	PSA		287	7637
November	Online module	TWCM		221	7858
November	Online module	CWH		878	8736
November	Workshop	PSA	Canberra	14	8750
November	Workshop	PSA	Darwin	4	8754
November	Workshop	CDU	Darwin	21	8775
December	Article	PSA		1351	10126
2025					
March	Workshop	PSA	Sydney	102	10228
March	Workshop	PSA	Adelaide	15	10243
March	Online workshop	PSA		33	10276
April	Workshop	PSA	Newcastle	40	10316
April	Online module	P777		58	10374
April	Webinar	PSA		542	10916
May	Workshop	PSA	Melbourne	59	10975
July	Article	PSA		1305	12280
August	Article	PSA		1188	13468
August	Workshop	PSA	Taree	24	13492
August	Online workshop	PSA		77	13569
November	Workshop	P777	Perth	30	13599
November	Online module	P777		25	13624

Host	Total	Type	Total
PSA Pharmaceutical Society of Australia	11945	In-person event	1216
CWH Chemist Warehouse	878	Online event	981
TWCM TerryWhite Chemmart	597	Online module	1182
P777 Pharmacy777	113	Article	10245
UniSA University of South Australia	70		
CDU Charles Darwin University	21		



In-person events with the Pharmaceutical Society of Australia

In collaboration with the Pharmaceutical Society of Australia, we held 12 x 90-minute workshops across all states and territories, to a total of 474 pharmacists.

Dr Daniel Sullivan also delivered a 30-minute insomnia presentation to 266 pharmacists at the Consultant Pharmacist Conference in May 2024.

Average 76% of evaluations rated in-person event presenters as **excellent**.

Average 85% of evaluations rated the suitability of the format as **excellent**.

Average 74% of evaluations rated satisfaction of the session as **excellent**.

Interactive polls

10 of the 12 workshops included interactive polls and a total of 250 pharmacists participated.

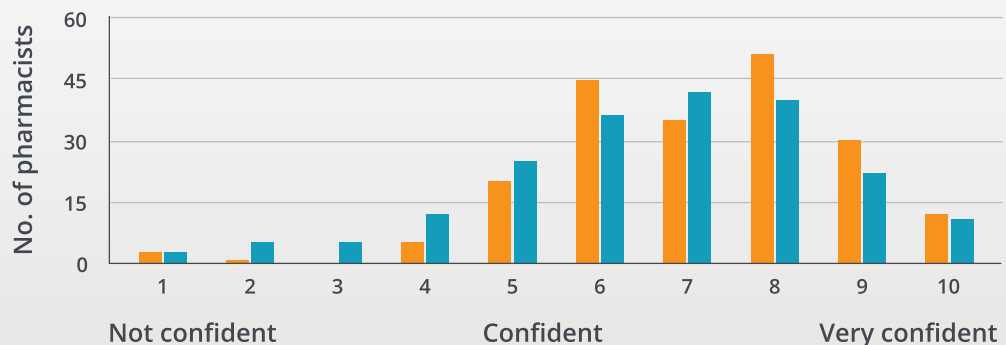


Figure 7.

Before the workshop, how confident do you feel...

■ in your sleep health knowledge

■ in supporting patients with a sleep complaint



Online workshops with the Pharmaceutical Society of Australia

The online workshop format is designed for smaller group sizes, facilitating an intensive learning experience through case studies, breakout rooms and small group discussion. We ran six online workshops in total, with three different topics, each offered twice.

Average 94% of evaluations rated the suitability of the online workshop format as **excellent**.

Insomnia in Aged Care Services

20 August & 4 September 2024

42 pharmacists attended

A/Prof Juanita Breen

Are your sleeping pills still working for you? How to start the conversation for better sleep solutions.

4 & 19 March 2025

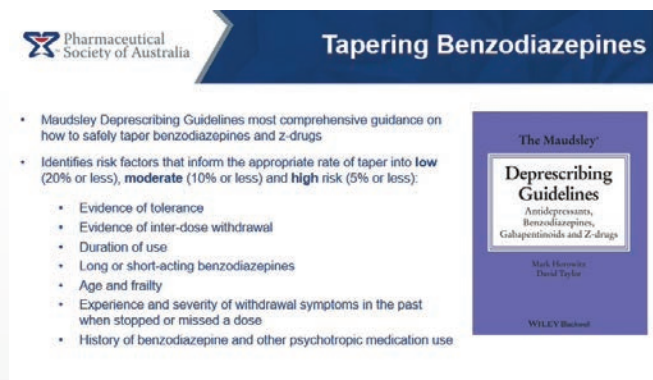
34 pharmacists attended

The Maudsley Deprescribing Guidelines: How to apply micro-tapering for nightly benzodiazepines

12 & 27 August 2025

77 pharmacists attended

Dr Erin Oldenhof and Viandro Borja



Pharmaceutical Society of Australia

Tapering Benzodiazepines

- Maudsley Deprescribing Guidelines most comprehensive guidance on how to safely taper benzodiazepines and z-drugs
- Identifies risk factors that inform the appropriate rate of taper into **low** (20% or less), **moderate** (10% or less) and **high** risk (5% or less):
 - Evidence of tolerance
 - Evidence of inter-dose withdrawal
 - Duration of use
 - Long or short-acting benzodiazepines
 - Age and frailty
 - Experience and severity of withdrawal symptoms in the past when stopped or missed a dose
 - History of benzodiazepine and other psychotropic medication use

The Maudsley Deprescribing Guidelines
Antidepressants, Benzodiazepines, Gabapentinoids and Z-drugs
Mark Horowitz
David Taylor
WILEY-Blackwell

"This was a brilliant workshop. I enjoyed the breakout rooms a chance to chat to other pharmacists attending. I really liked the fact we could see each other too during the interactive part. Overall A+."

"The interactive breakout rooms are really valuable for learning and reinforcing the information."

"One of the most enjoyable and useful workshops I have been to in a long time. Particularly useful to my practice."



Break Out Rooms

1. What would you suggest regarding Gail's reduction rate?
2. What information would you provide her about the liquid suspension?
3. Any other considerations?



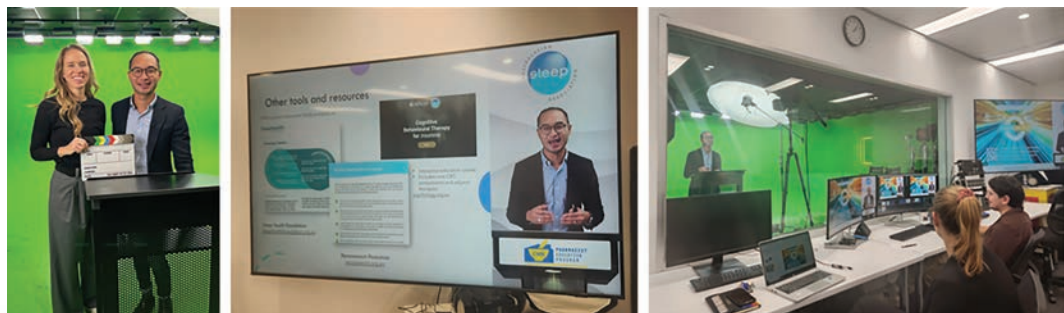
In-person workshops and online module TerryWhite Chemmart

In collaboration with TerryWhite Chemmart (TWCM), Dr Chelsea Reynolds developed and delivered a series of in-person insomnia workshops. During October 2024, 376 pharmacists attended TerryWhite Chemmart Masterclass Forums held in Melbourne, Brisbane, Adelaide, Sydney, Perth and Hobart. The Brisbane workshop was filmed and made available on the TWCM learning centre as an online module which an additional 221 pharmacists completed. Dr Daniel Hoyle delivered the workshop in Hobart.



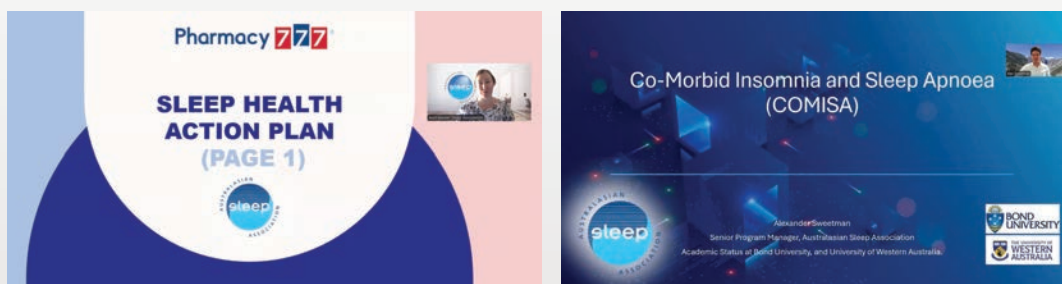
Online module with Chemist Warehouse

In collaboration with Chemist Warehouse, Dr Erin Oldenhof and Viandro Borja developed and delivered an insomnia module. The module was filmed at the CWH studio and made available on the learning centre in November 2024. A total of 878 pharmacists completed the online module and multiple-choice questions.



In-person workshop and online modules with Pharmacy777

In collaboration with Pharmacy777, Dr Alexander Sweetman and Stacey Putland developed and delivered two online modules on the Sleep Health Action Plan (April 2025) and co-morbid insomnia and sleep apnoea (COMISA, October 2025). A total of 58 pharmacists completed the online modules. Dr Alexander Sweetman also presented an in-person workshop to 30 pharmacists in November 2025.



Australian Pharmacist CPD articles



HMR case study (insomnia)

www.psa.org.au/wp-content/uploads/2024/09/Insomnia-PDF-4.pdf

Beyond sleep hygiene

www.psa.org.au/wp-content/uploads/2024/09/Beyond-sleep-hygiene10.pdf

Co-morbid insomnia and sleep apnoea

www.psa.org.au/wp-content/uploads/2024/09/Comorbid-insomnia-and-sleep-apnoea-COMISA86.pdf

Bedtime without benzodiazepines

www.psa.org.au/wp-content/uploads/2024/09/Bedtime-without-benzodiazepines-and-Zzz-drugs57.pdf

Non-prescription sleep aids

www.psa.org.au/wp-content/uploads/2025/01/Non-prescription-sleep-aids-PDF.pdf

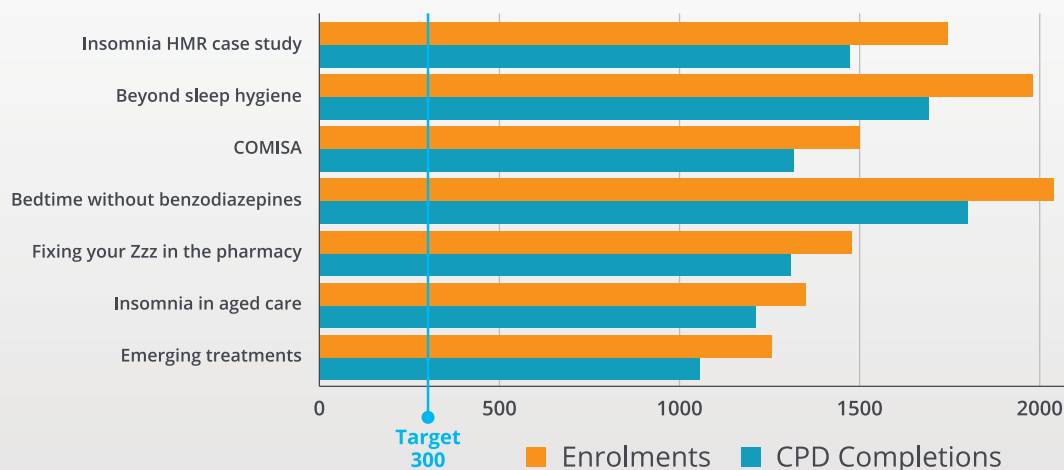
Insomnia management in aged care

www.psa.org.au/wp-content/uploads/2025/08/Insomnia-management-in-residential-aged-care.pdf

Emerging treatments for insomnia

www.psa.org.au/wp-content/uploads/2025/08/AP-August-2025-Insomnia.pdf

Figure 8. Australian Pharmacist Continuing Professional Development (CPD) articles



Webinars with the Pharmaceutical Society of Australia

Two webinars were presented. Each included a topic discussion then Q&A panel with speakers. Pharmacists can answer multiple-choice questions after each webinar to convert their Group 1 CPD points from attendance to Group 2 CPD. The webinar recordings and questions remain available for 3 years.

Wakeup call: sleeping pills, but what else?

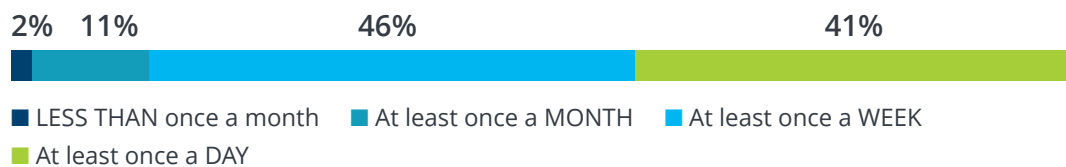
Dr Daniel Hoyle, Prof Bandana Saini, Todd Marion

13 November 2024

- 154 pharmacists attended live event
- 133 watched the recording
- 82 completed Group 2 CPD (29%)

How often would you see a patient with a sleep complaint?

Poll question answered by 91 participants



"Concise understandable explanations and practical implementation information."

How much do we actually know about melatonin and sleep?

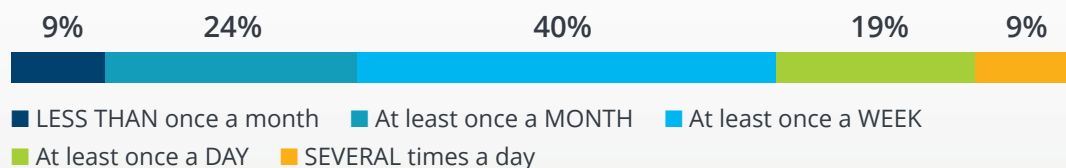
Dr David Cunnington, Dr Ayomide Ogundipe

9 April 2025

- 248 pharmacists attended live event
- 294 watched the recording
- 203 completed Group 2 CPD (38%)

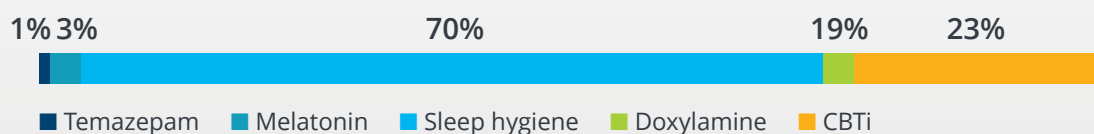
How often would you be asked a question about melatonin?

Poll question answered by 135 participants



What is the recommended first line treatment for insomnia?

Poll question answered by 152 participants



"One of the best webinars I have viewed in years – the format was great."

86% of evaluations rated overall satisfaction with the session as **excellent**.

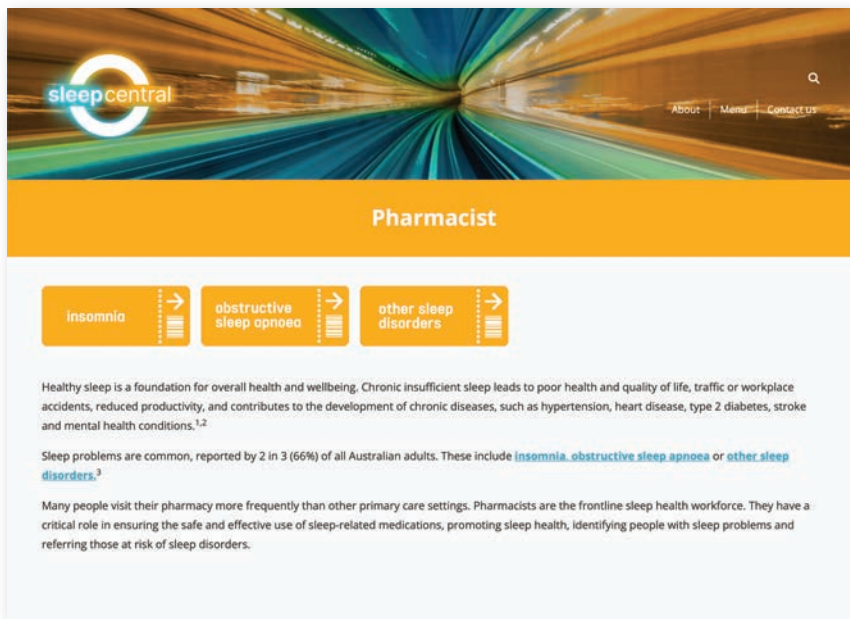
Resources

Sleep Central

Sleep Central provides tailored sleep health education, information and resources for pharmacists and other health care providers in Australia and New Zealand. The goal is to help improve sleep health, prevent sleep problems, and support the diagnosis and management of sleep disorders.

It includes resources, information and tools designed especially for Sleep Central. There are also links to the best evidence-based information and resources created by others, and pathways for referring patients to other clinicians.

Visit <https://sleepcentral.org.au>



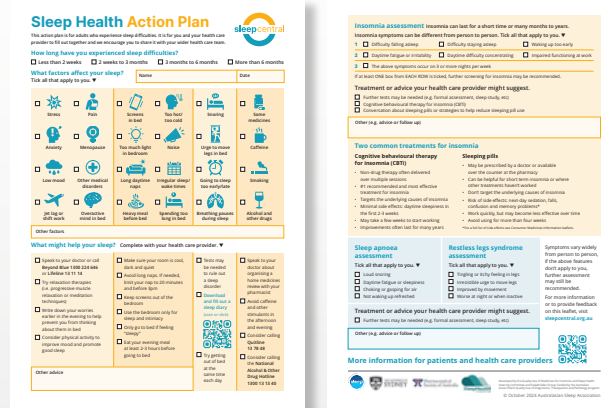
Sleep Health Action Plan

The Sleep Health Action Plan is a tool to help health care providers support people who are experiencing sleep difficulties.

It asks questions, provides evidence-based advice on ways to address sleep problems, and includes prompts and recommendations for health care providers to suggest actions each person might take.

Once a health care provider has walked through the action plan with a patient and noted some recommendations, patients can then share their action plan with their wider health care team.

When asked about their own experience, **nearly 80%** of consumers thought the Sleep Health Action Plan helped them to identify or manage their symptoms better.



Training and education videos

Specific video resources for pharmacists were developed and are hosted on **Sleep Central** (<https://sleepcentral.org.au/Central/Contents/Pharmacist/Video-resources.aspx>).



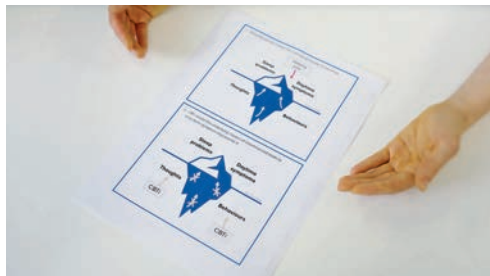
Sleep Health Action Plan

This animated video provides a brief overview of the Sleep Health Action Plan and has been used for promotion and during workshops.



Asking questions about sleep

This video provides an example conversation for a pharmacist presented with a prescription for a sleeping pill.



Answering questions about CBTi

This video provides an example follow up conversation for a pharmacist when a patient returns to ask questions about CBTi.



Delivering stimulus control therapy

This video provides an example conversation for a pharmacist delivering stimulus control therapy instructions to a patient.

We would like to thank **University of South Australia Clinical & Health Sciences** pharmacy team for facilitating the filming of these videos in their Pharmacy Practice Integrated Learning Suite, CrispFX and Thomas Smeets for video production, and actors Emily Currie, Stuart Pearce, Andrew Mair and Lyn Wilson.



<https://unisa.edu.au/about-unisa/academic-units/clinical-and-health-sciences>

Evaluation

Interactive polls

61% of attendees participated in interactive polls during 90-minute in-person workshops.

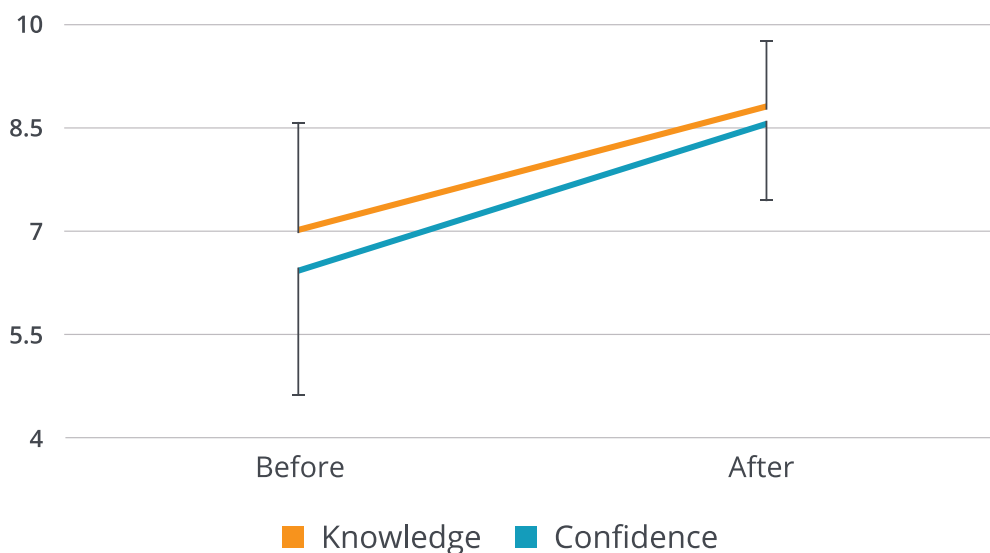


Figure 9. Change in average (standard deviation) pharmacist self-report knowledge and confidence in sleep health management on a 10-point scale from pre-workshop to post-workshop.

Pharmacists were asked “What will you do differently in your practice after today’s session?”

- *Be more proactive with initiating conversations with patients regarding their sleep/night routine*
- *Explore more options other than medication to help solve sleep issues*
- *Find out where my local sleep psychologists are*
- *Go through the sleep health action plans with customers and discuss CBTI*
- *Have a more thorough conversation with customers about sleep disorders*

Qualitative interviews

Ten pharmacists who attended in-person workshops participated in online qualitative interviews about their experiences and perspectives towards the QUMISH training program. Interviews were conducted by an experienced qualitative and sleep researcher (Nicole Grivell). Eight participants reported working in community pharmacy and six participants reported that they conducted Home Medication Reviews.

A desire to gain knowledge about best practice management of insomnia was the primary motivation for participants to complete training. Participants reported a high prevalence of insomnia in their customer population, and that they are frequently asked for advice about medications for insomnia and poor sleep. Some participants were interested in alternatives to sleep medicines as they were concerned about safety and side effects.

The QUMISH training was well received by participants, particularly the workshop, which some described as “excellent”. They appreciated the interactive components of the workshop, the different presenters’ clinical disciplines, and the evidence-based approach. These perspectives supported the feedback from many workshop attendees and survey respondents.

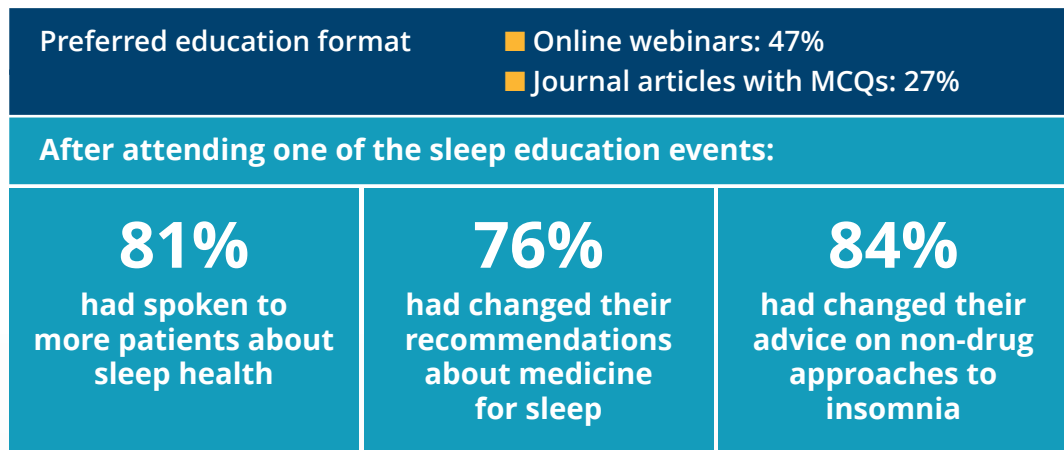
In-person training was preferred by most participants; however, they acknowledged it can be difficult to attend in-person training due to cost and time of travel, and long pharmacy opening hours.

After receiving training, several participants reported greater knowledge and confidence when talking to customers about sleep, two participants had recommended CBTi, and several had accessed and provided QUMISH resources to customers.

This work suggests that pharmacists are interested in pharmacological and non-pharmacological approaches to insomnia management, motivated by the high prevalence of insomnia, frequent requests to provide advice about insomnia, and concerns about the safety of sleeping pills. Further education about delivery of CBTi and the appropriateness of the treatment for older people, remuneration for consultations, and increased public awareness of CBTi and the role of pharmacists in non-pharmacological treatments for insomnia may be required for CBTi to be delivered by community pharmacists.

Follow up participant survey

We partnered with PSA to coordinate an online survey of PSA members that had attended/ accessed any sleep education during the QUMISH program. Among the 85 respondents, the vast majority (over 96%) reported that the event provided them with new information about sleep health, and nearly 98% felt more confident in their sleep health knowledge after attending.



Pharmacists reported accessing education for a variety of reasons, including a desire for evidence-based sleep information, maintaining professional education, and helping patients. Overall, these results suggest the events have had a positive impact on increasing knowledge and influencing professional practice.

Summary

The two-year QUMISH program provided over 13,624 engagements with Australian pharmacists. This program significantly improved pharmacists' knowledge, confidence, and engagement in sleep health management. More than 96% of participants reported gaining new knowledge, and 98% felt more confident discussing sleep health after completing training. Many pharmacists changed their clinical practice, including speaking to more patients about sleep, adjusting medicine recommendations, and encouraging non-drug approaches such as CBTi.

These outcomes mirror international findings that pharmacist education can shift practice towards evidence-based insomnia care. The literature review¹¹ demonstrated that trained pharmacists can provide screening, behavioural therapy, and deprescribing support effectively. However, QUMISH also revealed barriers to sustained change, including limited remuneration, competing workload demands, and public perceptions of pharmacists' roles.

Key strengths of the program were its national reach, strong interdisciplinary collaboration, and creation of practical tools such as Sleep Central and the Sleep Health Action Plan. These resources provide lasting infrastructure to support behavioural sleep management in primary care. The use of simulated patient audits to inform training design was another methodological strength. Nonetheless, the program's self-selected participants and reliance on self-reported data limit generalisability, and ongoing funding is needed to maintain and update resources.

One of the key learnings for the project team included the incredible value of collaboration with project partners and stakeholders. Close collaboration between professional organisations representing sleep, pharmacists, and community pharmacy groups facilitated the necessary content expertise in sleep medicine, and wide reach to pharmacists throughout Australia. The importance of identifying and supporting "sleep" champions became evident throughout the program, with three pharmacists now trained to deliver multicomponent CBTi and trialling a model of care in their community pharmacies.

We also identified unexpected challenges including difficulties recruiting pharmacists to participate in ethics-approved research activities to evaluate the effect of the education program. The use of brief evaluation tools (e.g., short surveys), attaching evaluation to CPD points, and conducting evaluation activities during/immediately following education workshops/webinars were most successful.

Overall, QUMISH demonstrated that pharmacists are willing and well placed to play a greater role in insomnia care. Embedding sleep health education within pharmacy curricula and continuing professional development, alongside developing reimbursement pathways and strengthening interprofessional referrals, will be vital for sustained practice change. With continued investment, pharmacists can be key agents in improving national sleep health and reducing reliance on sedative-hypnotics.

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