11 October 2018

Mr Trent Zimmerman, MP
Chair
Standing Committee on Health, Aged Care and Sport
Parliament House Canberra

Dear Mr Zimmerman,

**Submission to Inquiry into Sleep Health Awareness in Australia:**

This submission is from **DR MOIRA JUNGE** and **EMERITUS PROFESSOR DOROTHY BRUCK** to the Inquiry into Sleep Health Awareness in Australia which is currently being undertaken by the national parliamentary Standing Committee on Health, Aged Care and Sport, under your chairmanship. We are both registered psychologists specialising in sleep problems and both predominately treat people experiencing insomnia.

Dr Moira Junge is a health psychologist and has specialised in sleep disorders for the past twenty years. She is primarily a clinician in private practice but is also active in sleep research. She is involved with the education of undergraduate and post-graduate psychology students at Monash University and RMIT University and is a current board member of the Sleep Health Foundation.

Emeritus Professor Bruck is a retired academic from Victoria University with a research career specialising in sleep research. She has over 80 peer-reviewed international journal publications, 1400+ citations and significant success in obtaining and completing research projects funded from international bodies, ARC, NHMRC and industry. She has worked part-time as a sleep psychologist over the last decade and is currently the Chair of the Sleep Health Foundation.

**THIS SUBMISSION ADDRESSES FOUR OF THE INQUIRY'S FIVE TERMS OF REFERENCE:**

## *1. The potential and known causes, impacts and costs (economic and social) of inadequate sleep and sleep disorders on the community*

This submission is primarily focused on insomnia. It is the most common sleep disorder in Australia. While estimates vary depending on definition, one recent quality survey found that an estimated 20% of the adult population had 'significant insomnia'.[i] Despite its prevalence, impact on daily life, co-morbidity with other disorders and cost to society, insomnia is often trivialised by health professionals, under-diagnosed and under-treated.[ii] Insomnia is defined as difficulties initiating sleep, and/or maintaining sleep, waking earlier than desired and/or having non-restorative sleep. Sleep is essential for our health and wellbeing; however 40% of Australians report not being able to obtain adequate sleep.[iii] There are well-documented costs to our economy and

health, including $66.3 billion dollars per annum in lost productivity and direct health costs.[iii]

Many potential and actual barriers exist preventing an individual from obtaining healthy sleep and these barriers may lie with the individual and/or insufficient understanding of treatment options on the part of the health care practitioner. The barriers to obtaining quality sleep can be social, occupational, emotional, cognitive or physical in nature. The community needs more information about where, when and how to address any problems with their sleep. Australian data from 2008-2009 reported that patients attending a GP clinic who mentioned a sleep problem were, in over 90% of cases, prescribed a sleeping pill rather than receiving advice on modifying sleep practices. These same patients were also unlikely to be referred to a sleep centre or a sleep specialist.[iv]

There is scope for better education for the general public and also for our health practitioners. Below are some recommendations that will assist in addressing the potential and known causes, impacts and costs (economic and social) of inadequate sleep and sleep disorders on the community.

**Recommendations:**

1.1. Funding for a National Sleep Health Awareness Campaign targeting the general public as well as health care professionals
  1.1.1. Educate the public about the importance of seeking good quality, evidence-based sleep health information
  1.1.2. Education campaigns should encourage a visit to the GP, where self-help using available resources is not working
1.2. Development of evidence-based high quality sleep health resources for both the general community and health care professionals
1.3. Community resource development should include funding for the expansion and maintenance of the Sleep Health Foundation website
1.4. More education and support for GPs re non-pharmacological approaches (see below in sections 2 and 3)

## *2. Access to, support and treatment available for individuals experiencing inadequate sleep and sleep disorders, including those who are: children and adolescents, from culturally and linguistically diverse backgrounds, living in rural, regional and remote areas, Aboriginal and Torres Strait Islanders*

We wish to specifically address the issue of treatment of insomnia. GPs are, rightly, typically the first medical practitioner that a person with suspected insomnia consults about their sleep difficulties.[v] In fact, one Australian survey found that 11.1% of respondents have visited a primary care doctor about their insomnia symptoms.[vi]

In some cases of acute insomnia, typically with an identifiable precipitating factor such as post-operative pain or recent loss of a loved one, a prescription sleeping tablet may be an appropriate short-term treatment option. The main medications prescribed for insomnia are benzodiazepines, Z-drugs (e.g. zopiclone) and sedating antidepressants. With close to seven million prescriptions for benzodiazepines

dispensed in Australia each year (mostly for the treatment of anxiety and insomnia), [vii] it seems likely GPs may be neglecting non-pharmacological treatment options for insomnia, although insomnia patients have been found to prefer non-pharmacological strategies.[viii] Indeed GPs may feel poorly equipped to treat insomnia without reaching for the prescription pad due to a lack of information and/or training about evidence-based alternatives. The negative consequences of over-reliance on prescription sedatives for treating insomnia include the high cost to the Pharmaceutical Benefits Scheme, safety concerns (especially in cases of polydrug use[ix]), dependence problems[x] and the well documented higher rate of falls in the elderly taking sedatives[xi] to help sleep.

There is now a wealth of rigorous research, conducted across many countries internationally suggesting that the non-pharmacological therapy known as Cognitive Behavioural Therapy for Insomnia (CBT-I) is a highly effective treatment for chronic insomnia.[xii] Significant improvement in key sleep parameters are consistently evident in approximately two thirds of those with chronic insomnia and this improvement typically persists across 12 month follow-up periods.[xii] CBT-I treatment has recently been shown to significantly reduce the rate and dosage of hypnotic use.[xiii] In 2016 the American College of Physicians stated that the *ACP recommends that all adult patients receive cognitive behavioral therapy for insomnia (CBT-I) as the initial treatment for chronic insomnia disorder.*[xiv]

The various components of CBT-I are summarised in the table below.

| **CBT-I (Cognitive Behavioural Therapy for Insomnia) is a combination of** |
|---|
| • **Sleep psychoeducation (understanding normal sleep and its determinants)** |
| • **Sleep hygiene (environmental and lifestyle factors that may affect sleep)** |
| • **Sleep restriction therapy** |
| • **Stimulus control therapy** |
| • **Relaxation training** |
| • **Cognitive therapy (dealing with dysfunctional thoughts and attitudes about sleep)** |
| • **Mindfulness therapy (optional inclusion)** |

The therapy is usually delivered individually across 2 - 4 sessions and improvements typically occur quickly as the patient implements the recommended strategies. Group CBT-I therapy also shows good results and 4 - 6 sessions are usually offered. Given that Australian psychologists tend to report positive telehealth experiences,[xv] CBT-I is likely to be successfully adaptable to telehealth. There is a large volume of research on the efficacy of CBT-I using online delivery models (often therapist-guided).[xvi,xvii] Thus CBT-I can potentially be effectively delivered to rural, regional and remote areas in a low-cost manner. In Australia CBT-I is currently delivered by a comparatively small number of psychologists who have undertaken professional development in this therapy. (See section 3 below for more on professional training for insomnia therapy.) Some sleep physicians, but not most, may also offer CBT-I.

It is unrealistic for a busy GP to conduct the multiple sessions required for CBT-I therapy and various experts have developed shorter versions of CBT-I, with varying success. One successful abbreviated therapy for insomnia takes the Sleep Restriction

component of CBT-I and develops it in to a stand-alone, two session therapy, where time in bed is restricted in order to increase sleep drive and consolidate sleep, thereby increasing sleep quality. Once the restricted sleep is consolidated, sleep time is gradually extended to meet the individual's ongoing sleep need. Controlled studies of this therapy, including a recent New Zealand study, have found significant rates of improvement in sleep.[xviii,xix] We are recommending urgent funding for a larger scale Australian study of the efficacy of this two session therapy, termed Simplified Sleep Restriction (SSR) therapy, in primary care settings.

The figure on the page below presents clinical pathways that we are suggesting could be followed by GPs, presenting with acute/episodic insomnia (upper flowchart) or chronic insomnia (lower pathway). As shown in the figure's upper flowchart, the simplified therapy (SSR) is designed to be delivered to patients presenting with short-term or episodic insomnia *without* relevant comorbidities (such as post-traumatic stress disorder, clinical depression, substance abuse) or signs of another sleep disorder (such as sleep apnea, restless legs syndrome or delayed sleep phase disorder). Where the insomnia has become chronic (lower pathway in the figure), the GP would refer the patient to a suitably trained allied professional for CBT-I. Such a professional may be a person working under the MBS Better Access initiative, or it may be a nurse practitioner in a primary care setting. Trained nurse practitioners have been shown to be effective in delivering CBT-I.[xx]

Importantly, there is a growing body of research that suggests that CBT-I is an effective therapy for insomnia, even when significant psychiatric comorbidities are present.[xxi] For example, an Australian study included participants with both insomnia and depression (being treated with antidepressants for >6 weeks) and compared those who received therapist-delivered CBT-I with a self-help cohort who only received CBT-I materials to read. They found that 61.1% of the former group were in clinical remission from both their insomnia and depression, compared with only 5.6% of the self-help group.[xxii]

**Recommendations:**

2.1. Major expansion of the availability of CBT-I treatment for patients presenting with chronic insomnia, with referral through GPs. Therapy delivered by trained allied health professionals which should include those eligible through the MBS Better Access initiative (i.e. psychologists, social workers and occupational therapists) as a well as nurse practitioners in clinical health centres.

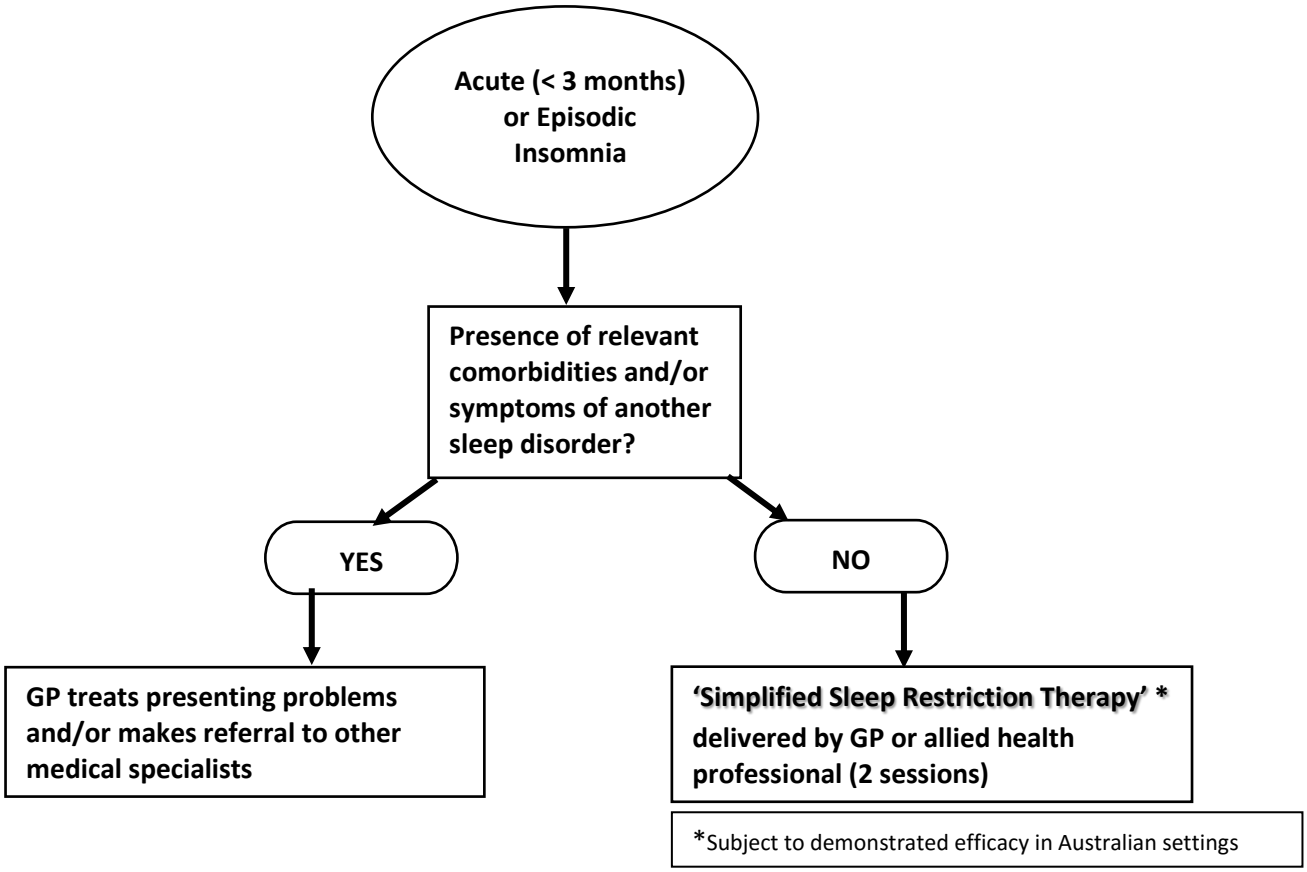
2.2. Implementation of the above recommendation requires a major program of training of allied professionals in CBT-I.

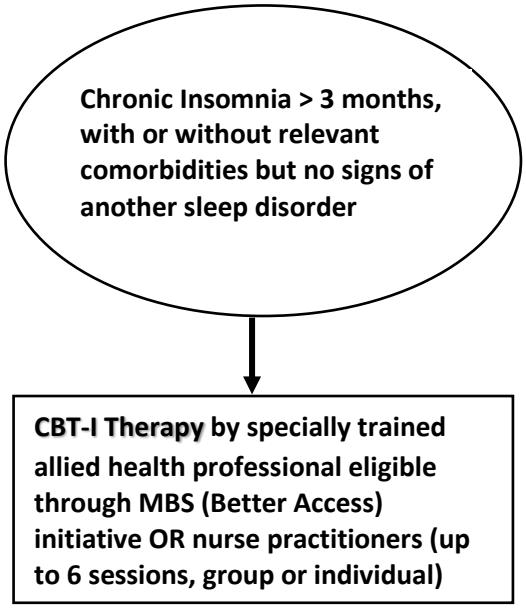
2.3. Funding of an Australian research study to examine the efficacy and feasibility of Simplified Sleep Restriction therapy, including its implementation in primary care settings as described above. If the research makes positive recommendations then SSR training should be developed and made available for GPs.

2.4. Standardised Australian CBT-I programs should be developed and rigorously evaluated for delivery in individual face-to-face sessions, group sessions, telehealth and therapist-assisted online programs.

## Recommended clinical pathways for adults presenting to a GP with insomnia

**(Note: Both therapies below can be delivered via Telehealth)**



## 3. *Education, training and professional development available to healthcare workers in the diagnosis, treatment and management of individuals experiencing inadequate sleep and sleep disorders*

It is clear that there is a paucity of knowledge and skills in the area of sleep health in Australia. As outlined above in section 1, this deficit exists in the general community, and also pertains to many health care professionals. There needs to be an increased focus on sleep health education and training available to healthcare professionals.

Psychologists and medical practitioners currently receive limited training during their undergraduate and postgraduate clinical training in assessing, diagnosing and treating sleep disorders. Exact data is not available in Australia but in the USA only 6% of post graduate training courses for psychologists included specific sleep content.[xxiii] Research is currently underway in Australia at RMIT University to assess the state of sleep education for psychologists and develop a much-needed sleep psychology training program for postgraduate psychology students. For psychologists that are already registered and practicing in Australia, the Australian Psychological Society (APS) currently offers an online Practice Certificate in sleep psychology to train practicing psychologists in sleep, launched in 2013. It is offered purely online and has a simple open-book multiple choice test as its only assessment. There is scope to improve the rigour of this training and also the uptake of enrolments. Over the past 5 years, only 121 psychologists in Australia have completed the APS Practice Certificate in Sleep Psychology. Approximately 800 psychologists have completed the introductory module of the Practice Certificate which is an overview of sleep. There are approximately 30,000 registered psychologists in Australia. Equivalent data for the uptake of sleep specific training courses for GPs and medical students is not readily available, but in there is significant room for expansion of their availability.

**Recommendations:**

3.1. More training for undergraduate and postgraduate psychology and medical students in the non-pharmacological and pharmacological management of insomnia and other sleep disorders.
3.2. More training for GPs and registered psychologists in the non-pharmacological treatments for insomnia and other sleep disorders.
3.3. More training in the bidirectional relationship between sleep and mental health issues for medical and psychology practitioners and its implications for effective treatment.
3.4. An overall increase in funding is required to facilitate training of health professionals (including nurses) in order to address the issue of inadequate sleep in Australia.

## 4. *Current national research and investment into sleep health and sleeping disorders.*

While there is currently no Australian research about the economic or societal costs of insomnia specifically, the costs are likely to be huge. A 2018 US study found the annual loss of Quality Adjusted Life Years (QALYs) associated with insomnia was significantly larger than that associated with any of the other 18 medical conditions

assessed, including arthritis, depression, and hypertension.[xxiv] While Australian sleep research has lead the world in understanding and treating sleep apnea, this has not been the case for insomnia. This is despite its presumed high QALYs, prevalence and rates of individuals seeking help from their GPs for the problem, as well as the many prescriptions for hypnotics written annually (details and references as noted above).

There are a myriad of issues surrounding insomnia in Australia that require rigorous research. Some of these issues include

- insomnia risk factors (e.g. through prospective studies),
- help-seeking behaviours,
- barriers to making behavioural changes advantageous to improving sleep quality,
- insomnia treatment in the context of comorbidities (e.g. mental health problems, suicidal ideation, substance abuse, post-traumatic stress disorder, pain, cancer),
- treatment practices and pathways in primary care and the role of allied and specialist health practitioners,
- best practice for treating hypnotic dependency,
- genetic factors in insomnia,
- insomnia in the workplace and implications for safety and productivity,
- best practice for CBT-I implementation in telehealth and online contexts.

**Recommendation:**

4.1. That a targeted call be made for more research about insomnia in Australia, possibly using funds from the Medical Research Future Fund (MRFF). Specific studies as outlined in recommendations 2.3 and 2.4 above are particularly recommended for the funding call.

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We are hopeful that the outcomes from this Inquiry will lead to national initiatives to address the many problems arising from poor sleep health awareness, including the high rates on untreated, or inappropriately treated, insomnia.

We would be pleased to furnish you and your committee with further information regarding issues pertaining to insomnia on request.

Yours sincerely,

Emeritus Professor Dorothy Bruck

Dr Moira Junge

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