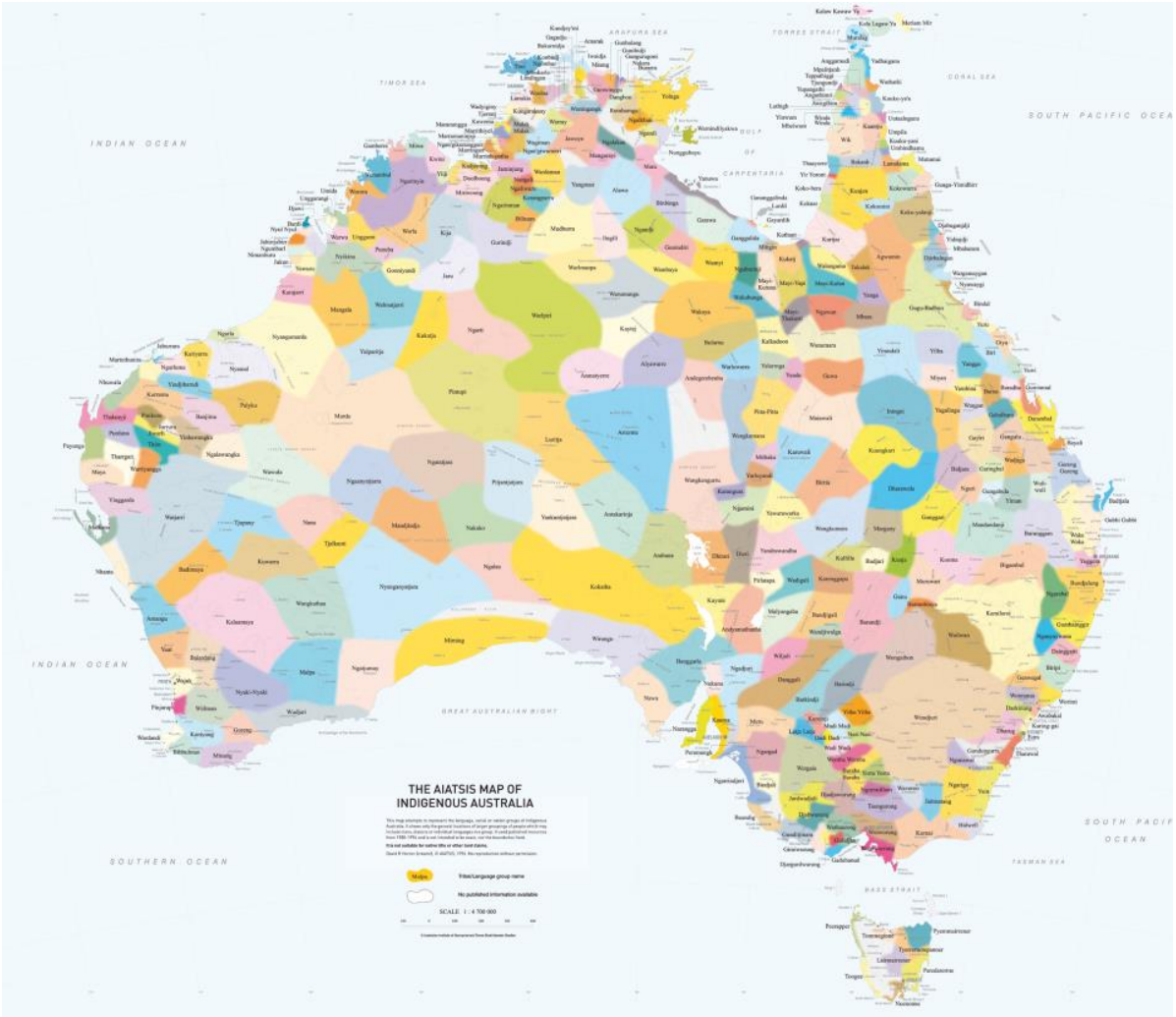
Welcome to today's Insight / APSAD webinar.

We'll be starting a little after 10am (QLD time).

- Use the chat icon for all questions and comments – *select All panelists and attendees.*
- If you are experiencing other problems or require further technical assistance call Zoom on **1800 768 027.**
- A pdf version of today's presentation will be available soon in the chat window.
- A recording of this webinar will be available on our YouTube channel in the coming weeks.

insight
Centre for alcohol and other drug training and workforce development

APSAD
The Australasian Professional Society on Alcohol and other Drugs



We acknowledge the Traditional Owners of the land on which this event takes place and pay respect to Elders past and present.

This map attempts to represent the language, social or nation groups of Aboriginal Australia. It shows only the general locations of larger groupings of people which may include clans, dialects or individual languages in a group. It used published resources from 1988-1994 and is not intended to be exact, nor the boundaries fixed. It is not suitable for native title or other land claims. David R Horton (creator), © AIATSIS, 1996. No reproduction without permission. To purchase a print version visit: www.aiatsis.ashop.com.au/

insight
Centre for alcohol and other drug training and workforce development

APSAD
The Australasian Professional Society on Alcohol and other Drugs

Metro North Hospital and Health Service *Putting people first*

5th May 2021

Insight Webinar: Centre for Alcohol and other Drug Training and Workforce Development

Help! I Can't Sleep: Sleep Disorders and Mental Health

Dr Sara Winter, Clinical Psychologist

Senior Psychologist – Sleep
The Prince Charles Hospital
and Greenslopes and Respiratory and Sleep Centre
wintersleep.com.au

Sara.Winter@health.qld.gov.au
admin@GRScentre.com.au

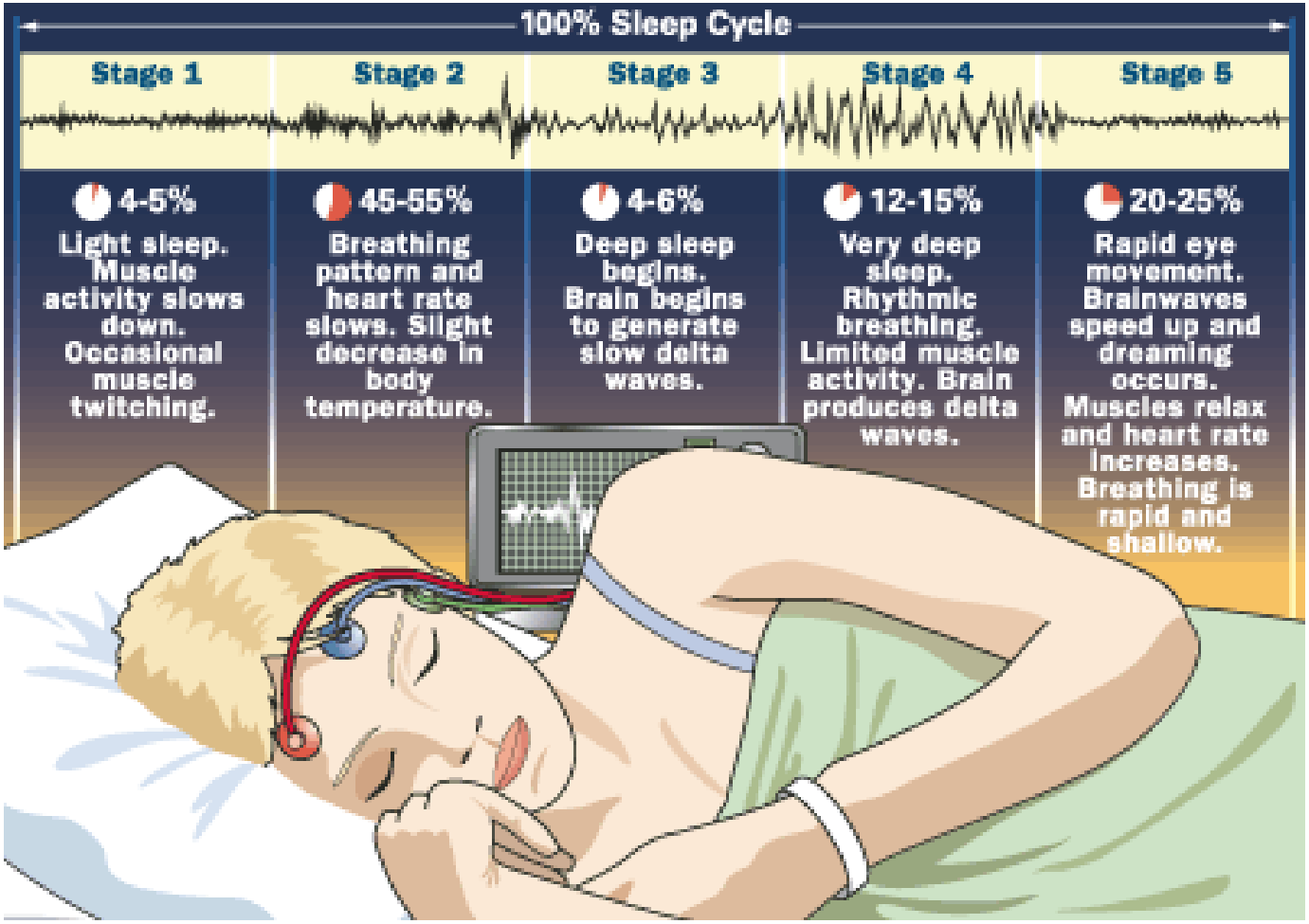
Queensland Government

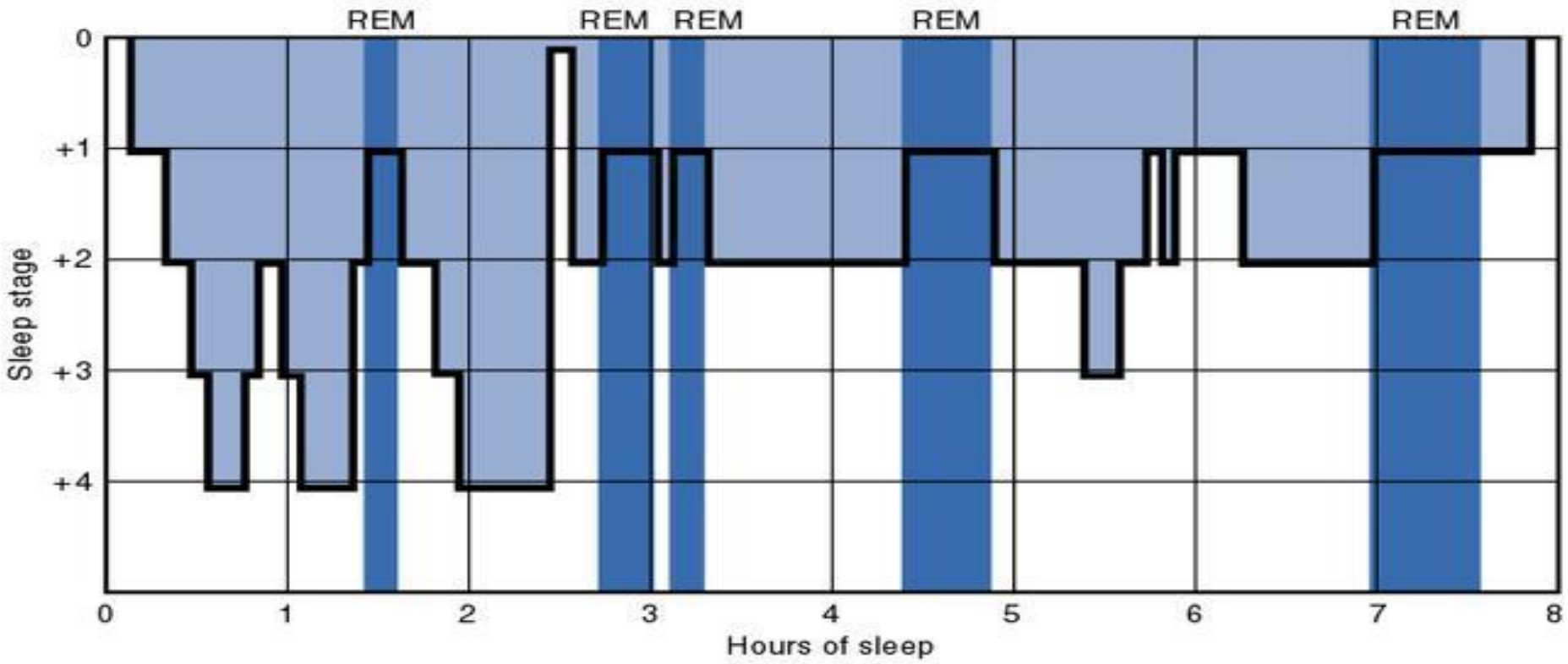
Outline

- What is sleep?
- Consequences of sleep disturbance
- Sleep and mental health – associations and challenges
- Evidence-based assessment and management

With thanks to Dr Claire Ellender, Respiratory & Sleep Consultant, Princess Alexandra Hospital

Definition of sleep





Young Adult sleep patterns consist of 7-8 hours of 90-110 min. repeating cycles

Sleep changes with age

Sleep Disorders are Common and Costly

- 2010 estimated 1.5 million Australians (8.9% of the population) with sleep disorders
  - 775,000 people with Obstructive Sleep Apnoea (OSA; 4.7%);
  - 492,000 people with Primary Insomnia (3%); and
  - 199,000 people with Restless Legs Syndrome (RLS; 1.2%).
- Sleep is one determinant of health
  - cardiovascular disease, hypertension, glucose dysregulation, depression, and anxiety disorders
- The total health care cost of sleep disorders in 2010 was estimated to be $818 million
- Total cost associated with sleep disorders in Australia is $66.3 billion.

Access Economics 2011

https://www.sleephealthfoundation.org.au/news/special-reports/rise-and-try-to-shine-the-social-and-economic-costs-of-sleep-disorders.html

Insomnia

Symptoms >1 of sleep disturbance

- Difficulty initiating sleep
- Difficulty maintaining sleep
- Waking up earlier than desired
- Cannot be explained purely by inadequate or inadequate circumstances
- >3x per week
- >3 months

Associated with Impairment /Distress >1 of

- Fatigue/malaise
- Attention, concentration or memory impairment
- Mood disturbance/irritability
- Daytime sleepiness
- Behavioural problems (e.g. hyperactivity, impulsivity, aggression)
- Reduced motivation/energy/initiative
- Proneness for errors/accidents
- Concerns about or dissatisfaction with sleep

Insomnia and Women

- Women are 1.4 times more likely to experience insomnia
- Higher incidence post-menopause
  - up to 50% >65 yr olds
- Sleep is a determinant of women's health
  - sleep disturbances co-occur with premenstrual dysphoria, pregnancy, postpartum depression and menopausal transition

Kloss & Nash (2013) Women's sleep through the lifespan. In: Women's Health Psychology ISBN: 978-0-470-89066-0

CBTi – first line in Chronic Insomnia Management

Recommendation 1:*ACP recommends that all adult patients receive cognitive behavioral therapy for insomnia (CBT-I) as the initial treatment for chronic insomnia disorder. (Grade: strong recommendation, moderate-quality evidence)*

Recommendation 2:*ACP recommends that clinicians use a shared decision-making approach, including a discussion of the benefits, harms, and costs of short-term use of medications, to decide whether to add pharmacological therapy in adults with chronic insomnia disorder in whom cognitive behavioral therapy for i (Grade: weak recommendation,*

Behavioral and psychological treatments for chronic insomnia disorder in adults: an American Academy of Sleep Medicine clinical practice guideline

Jack D. Edinger, PhD, J. Todd Arnedt, PhD, Suzanne M. Bertisch, MD, MPH, Colleen E. Carney, PhD, John J. Harrington, MD, MPH, Kenneth L. Lichstein, PhD, Michael J. Sateia, MD, FAASM, Wendy M. Troxel, PhD, Eric S. Zhou, PhD, Uzma Kazmi, MPH, Jonathan L. Heald, MA, Jennifer L. Martin, PhD

Published Online: February 1, 2021 • https://doi.org/10.5664/jcsm.8986 • Cited by: 2

Sleep Medicine 36 (2017) S43–S47

Contents lists available at ScienceDirect

Sleep Medicine

journal homepage: www.elsevier.com/locate/sleep

Australasian Sleep Association position statement regarding the use of psychological/behavioral treatments in the management of insomnia in adults

Melissa Ree [a, b, *], Moira Junge [c], David Cunnington [c]

Qaseem et al (2017) Ann Intern Med DOI: 10.7326/m15-2175

JCSM
Journal of Clinical Sleep Medicine

SCIENTIFIC INVESTIGATIONS

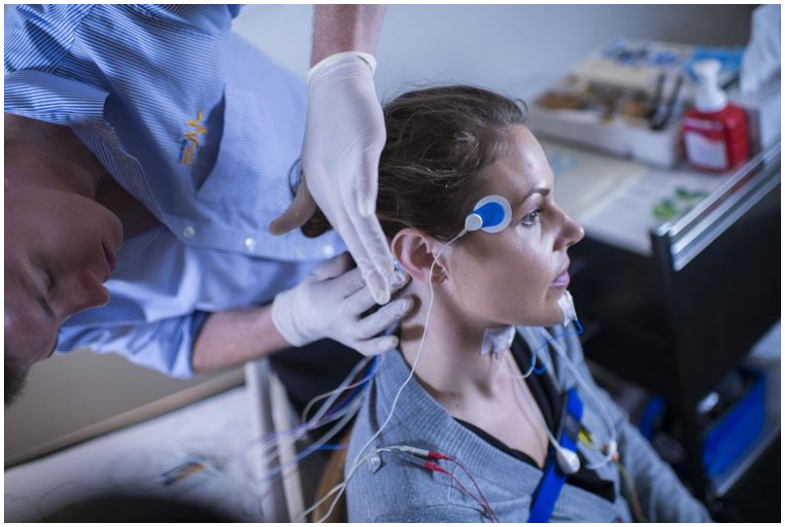
Time Trends in the Family Physician Management of Insomnia: The Australian Experience (2000–2015)

Christopher B. Miller, PhD[1]; Lisa Valenti, BEc, MMedStat[2]; Christopher M. Harrison, B Psych (Hons), MSocHlth[2]; Delwyn J. Bartlett, PhD[1,3]; Nick Glozier, MBBS, PhD[4]; Nathan E. Cross, BSc (Hons)[1]; Ronald R. Grunstein, MD, PhD[1,3,5]; Helena C. Britt, PhD[2]; Nathaniel S. Marshall, PhD[1,6]

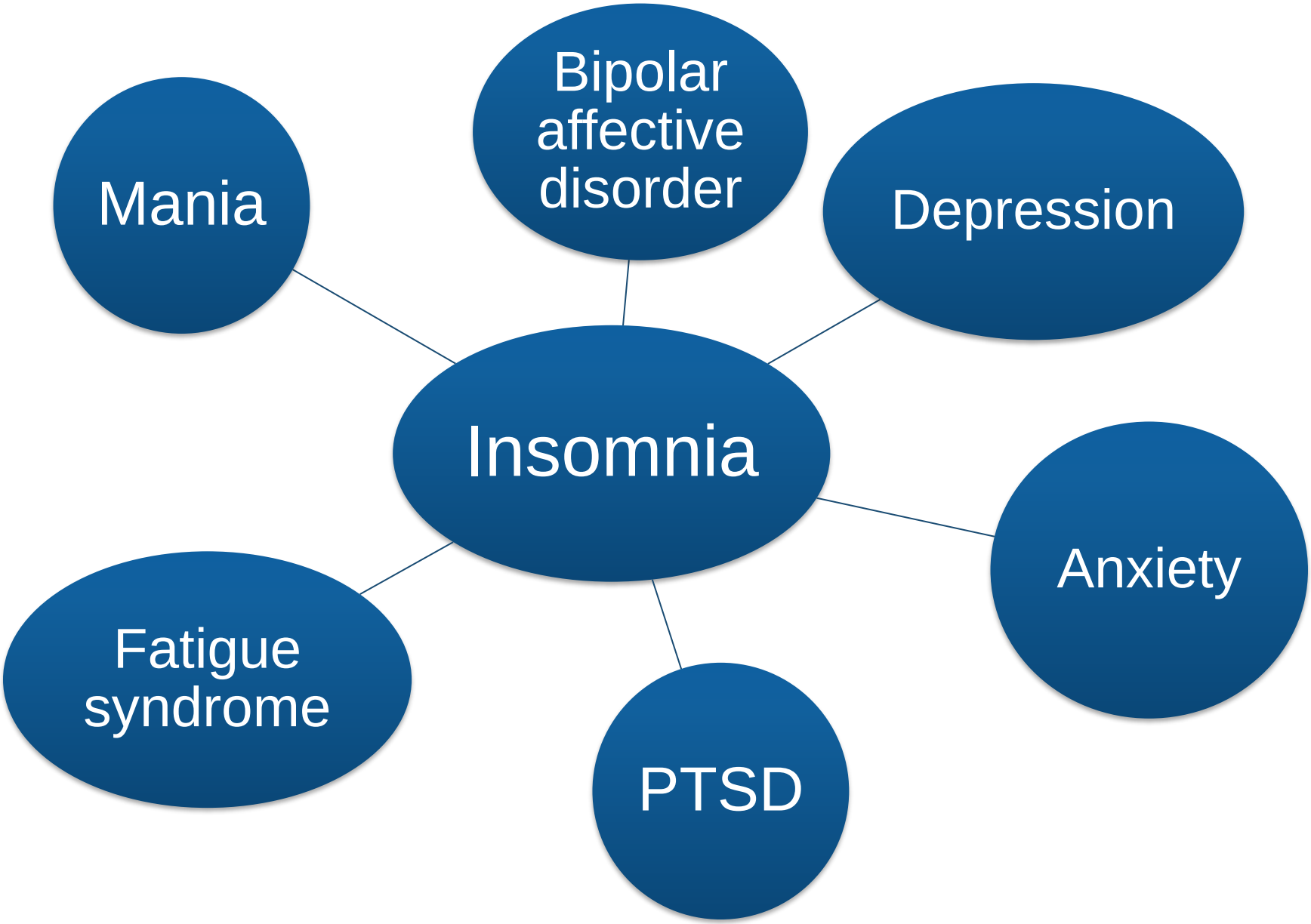
[1]CIRUS, Centre for Sleep and Chronobiology, Woolcock Institute of Medical Research, The University of Sydney, Australia; [2]Family Medicine Research Centre, School of Public Health, Sydney Medical School, The University of Sydney, Australia; [3]Sydney Medical School, The University of Sydney, Australia; [4]Brain and Mind Centre, The University of Sydney, New South Wales, Australia; [5]Department of Respiratory and Sleep Medicine, RPAH, Sydney Local Health District, Sydney, New South Wales, Australia; [6]Sydney Nursing School, The University of Sydney, New South Wales, Australia

- Bettering the Evaluation And Care of Health (BEACH) program
  - nationally representative cross-sectional survey of FP activity in Australia
- All encounters between 2000-2015 with patients older than 15 years where insomnia or difficulty sleeping was managed
- Pharmacotherapy used ~ 90% of encounters
- Nonpharmacological advice ~ 20%
- Onward referral ~ 1%

Multidisciplinary Team



Overlap Syndromes



Sleep Medicine Reviews 43 (2019) 96–105

Contents lists available at ScienceDirect

Sleep Medicine Reviews

journal homepage: www.elsevier.com/locate/smrv

CLINICAL REVIEW

Insomnia as a predictor of mental disorders: A systematic review and meta-analysis

Elisabeth Hertenstein [a, *], Bernd Feige [b], Tabea Gmeiner [b], Christian Kienzler [b], Kai Spiegelhalder [b], Anna Johann [b], Markus Jansson-Fröjmark [c], Laura Palagini [d], Gerta Rücker [e], Dieter Riemann [b], Chiara Baglioni [b]

pii: sp-00839-13

http://dx.doi.org/10.5665/sleep.4412

INTERNET TREATMENT FOR EITHER INSOMNIA VERSUS DEPRESSION

Internet Treatment Addressing either Insomnia or Depression, for Patients with both Diagnoses: A Randomized Trial

Kerstin Blom, MSc[1]; Susanna Jernelöv, PhD[2]; Martin Kraepelien, MSc[1]; Malin Olséni Bergdahl, MSc[1]; Kristina Jungmarker, MSc[1]; Linda Ankartjärn, MSc[1]; Nils Lindefors, MD, PhD[1]; Viktor Kaldo, PhD[1]

CBTi improves Insomnia & Depression

Measure (Scale Range)	Group	Pre Mean (SD)	Post Mean (SD)	FU6 Mean (SD)	FU12 Mean (SD)
ISI (0–28)	ICBT-i	18.6 (4.0)	13.0 (6.4)	10.9 (5.9)	10.2 (5.0)
	ICBT-d	20.0 (4.1)	17.0 (7.0)	15.6 (6.7)	14.6 (7.3)
MADRS-S (0–54)	ICBT-i	25.1 (5.9)	18.7 (11.4)	15.7 (8.6)	16.7 (9.2)
	ICBT-d	26.0 (6.9)	20.5 (9.8)	18.0 (7.1)	18.5 (9.1)

ISI > 8 (MCID = 6 Yang et al Curr Med Res Opin, 2009)
MADRS-S >13 (MCID = 1.9 Duru et al Curr Med Res Opin, 2008)

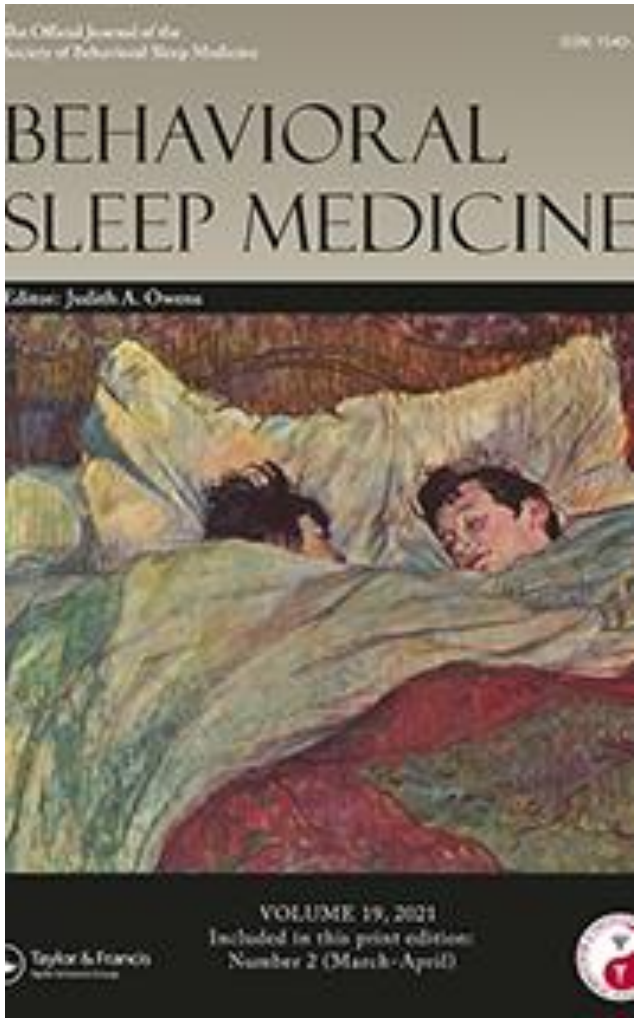
Blom 2015 *SLEEP* 38: 267–277

Young Adults, Sleep and Mental Health

- Systematic review and meta-analysis of 13 RCTs of psychological interventions for improving sleep with secondary outcomes (eg anxiety, depression)

- Moderate effect all interventions (ES = −0.53, $p < .01$)
- Subgroup analyses of individual interventions

  CBT improved outcomes at post-intervention:
  - sleep (ES = −0.67, $p < .01$) and
  - anxiety (ES = −0.35, $p < .01$)
  - depression (ES = −0.41, $p < .01$)



Kodsi et al 2021 *Behavioral Sleep Medicine* DOI: 10.1080/15402002.2021.1876062

Sleep Disorders and Mental Health

- Literature focusses on bipolar, schizophrenia and major depression
- CBTi is effective in treating insomnia in these populations
  **with some suggested modifications
- CBTi as an enhancer of outcomes in psychiatric care
  - Response to medications, and lower medication dose
  - Treatment adherence
  - Reduced risk of relapse
  - Reduced symptom severity
  - Physical health
  - Quality of life
  - Regulating 24-hr routines

Manber et al 2008 *SLEEP* 31:489-495; Freeman et al 2015 *Lancet Psychiatry* 2: 975-983;

Harvey et al 2015 *J Consulting and Clin Psychol* 83: 564-77; Waters et al 2020 *Schizophrenia Research* 221: 57-62

Schizophrenia and Sleep

Three main risks in schizophrenia in relation to sleep disturbances

1) worsening psychotic symptoms

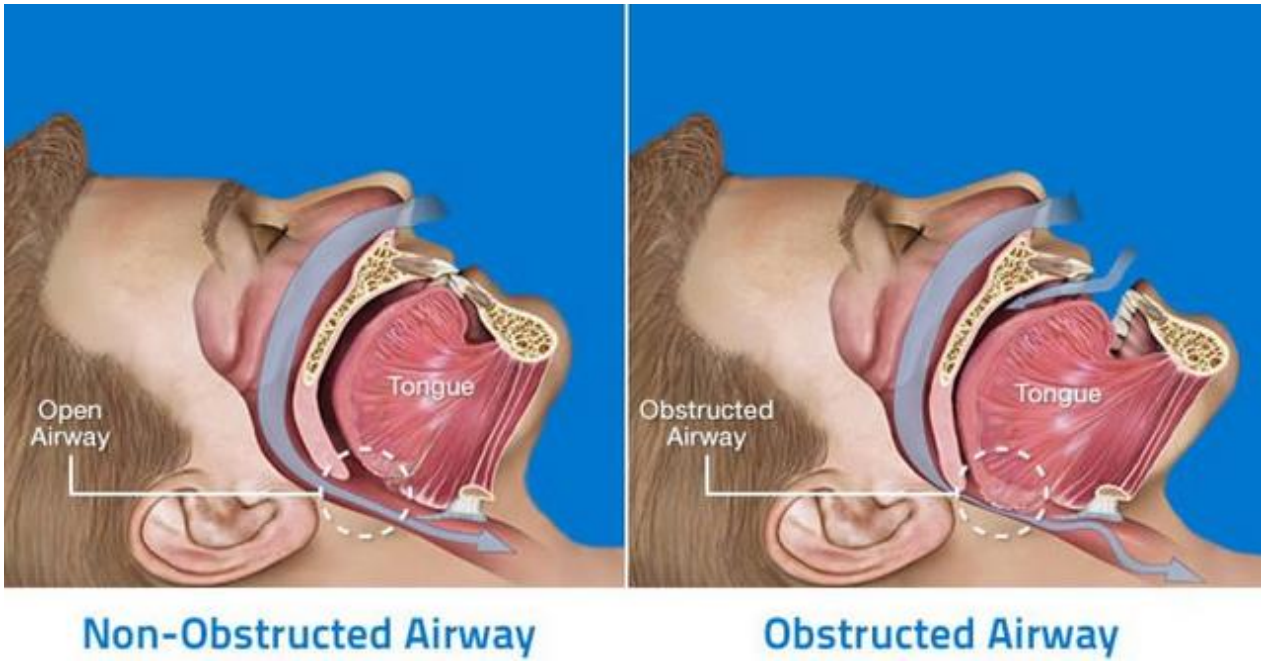
2) higher incidence of sleep disorders (especially OSA ~ 15.4%)

3) poorer quality of life with concurrent sleep disturbance

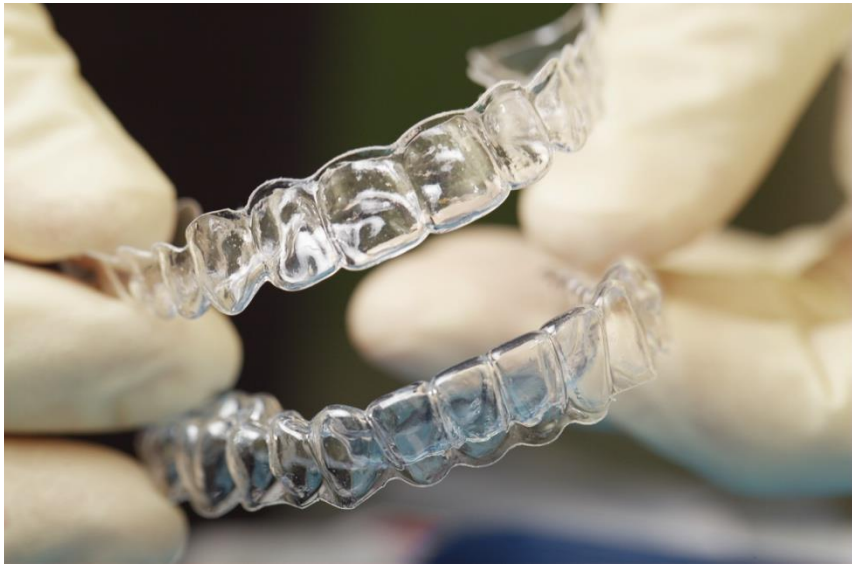
- Insomnia is a risk factor for development of mood disorders and psychosis
  - severe insomnia common in the prodromal phase of illness
- Significant circadian rhythm disruption is common
- Sleep-wake cycle is likely dopamine sensitive
- Treatment adherence to medication is a problem – abrupt cessation of antipsychotics associated with deterioration in sleep quality
- Neuroleptic-induced akathisia can closely resemble restless legs syndrome and periodic limb movement disorder

Kaskie et al 2017 *Nature and Science of Sleep* 9: 227–239; Kesner et al 2021 *Neuropsychopharmacology* 46: 683–684

Obstructive Sleep Apnoea (OSA)



Therapies for Obstructive Sleep Apnoea



Bipolar Disorder and Sleep

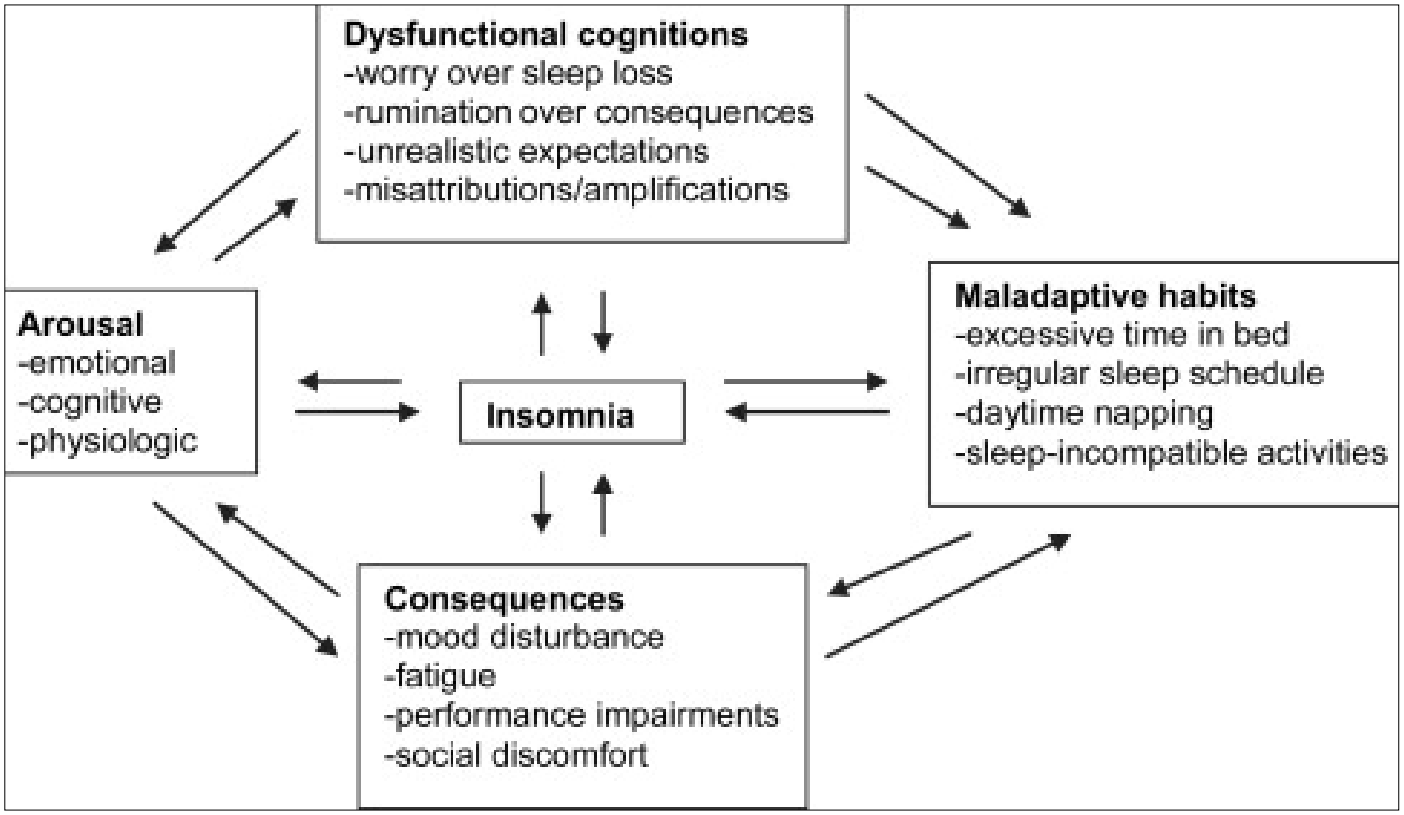
- Sleep plays an important in mood and emotional regulation
- Sleep disturbances are key symptoms of BD - hypersomnia, subjective daytime sleepiness, insomnia commonly observed in manic episodes
- 70% of patient report persisting sleep problems between episodes
- Higher risk of polypharmacy, hypnotic and substance misuse
- Delayed sleep phase syndrome (DSPS) present in up to 10% of hypersomnia/insomnia cases
- Sleep disturbances has been consistently linked to recurrence of mood episodes
- Treating comorbid sleep and/or circadian disturbances also targets mood symptoms of BD

Morton & Murray 2020 *Clin Psychol Psychother* 27:364–377;
Harvey et al 2015 *J Consulting and Clin Psychol* 83: 564-77

Cognitive Behaviour Therapy for Insomnia (CBTi)

- Sleep restriction */ Sleep compression
- Stimulus Control
- Cognitive Restructuring
- Arousal Management
- Sleep Hygiene

- Mindfulness



van de Laar et al (2009) Sleep Medicine Reviews DOI: 10.1016/j.smrv.2009.07.007

Stepped Care

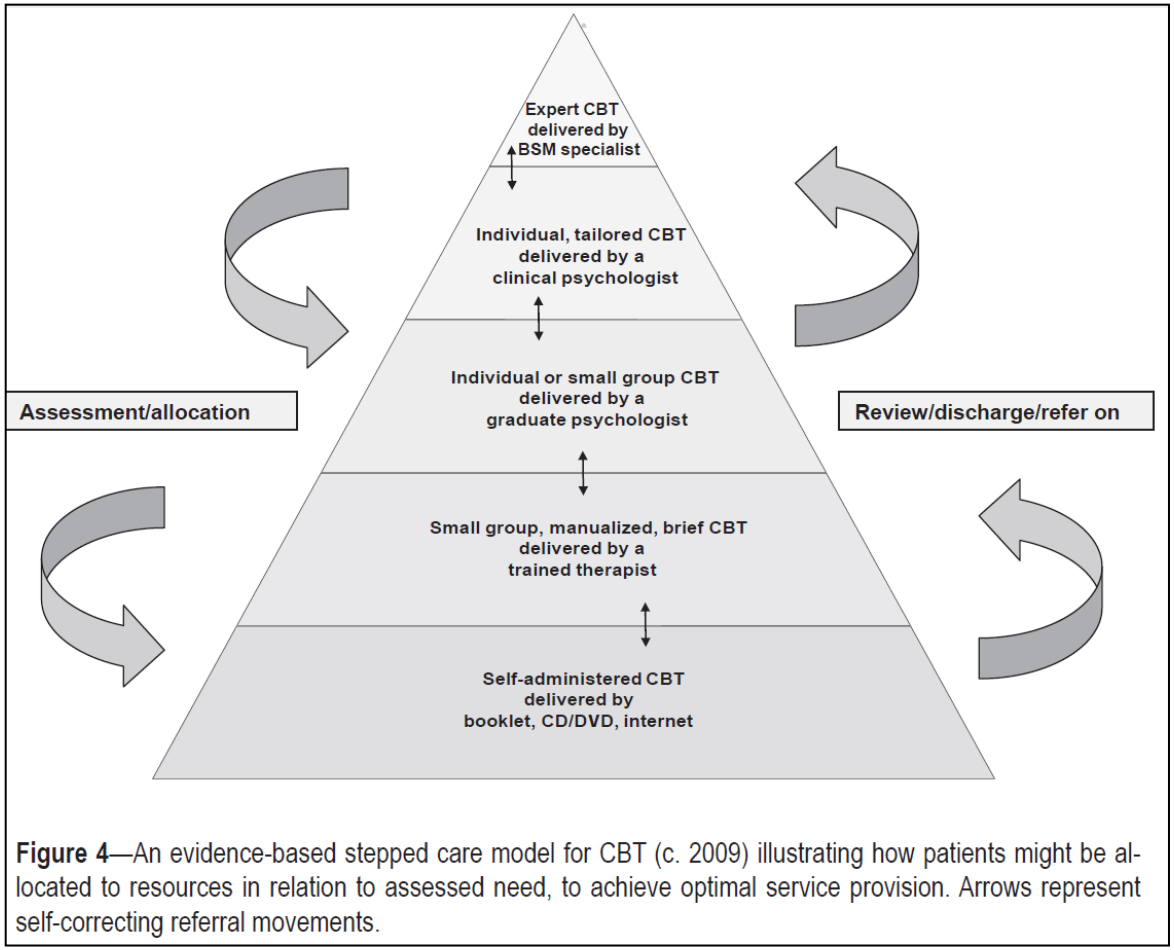


Figure 4—An evidence-based stepped care model for CBT (c. 2009) illustrating how patients might be allocated to resources in relation to assessed need, to achieve optimal service provision. Arrows represent self-correcting referral movements.

Espie (2009) Sleep DOI: 10.1093/sleep/32.12.1549

Internet-based and Self-help

SYDNEY SLEEP CENTRE

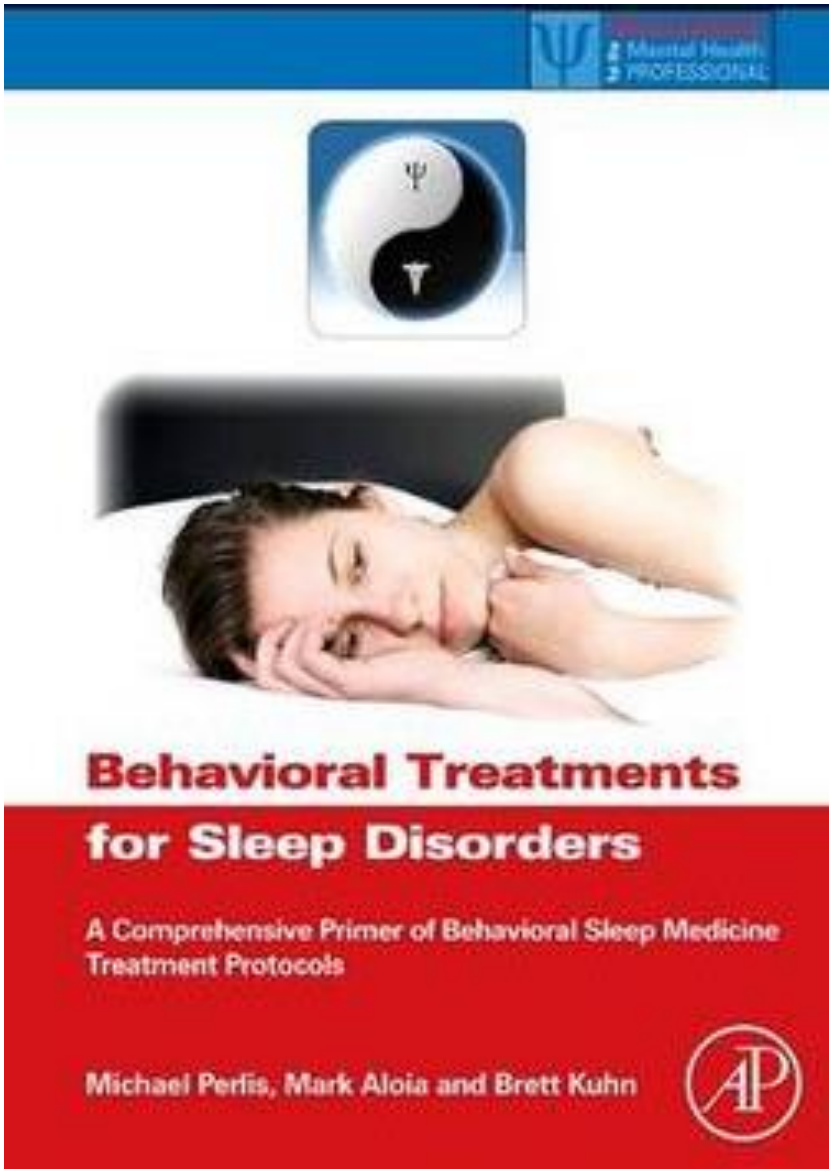
A Mindful Way.

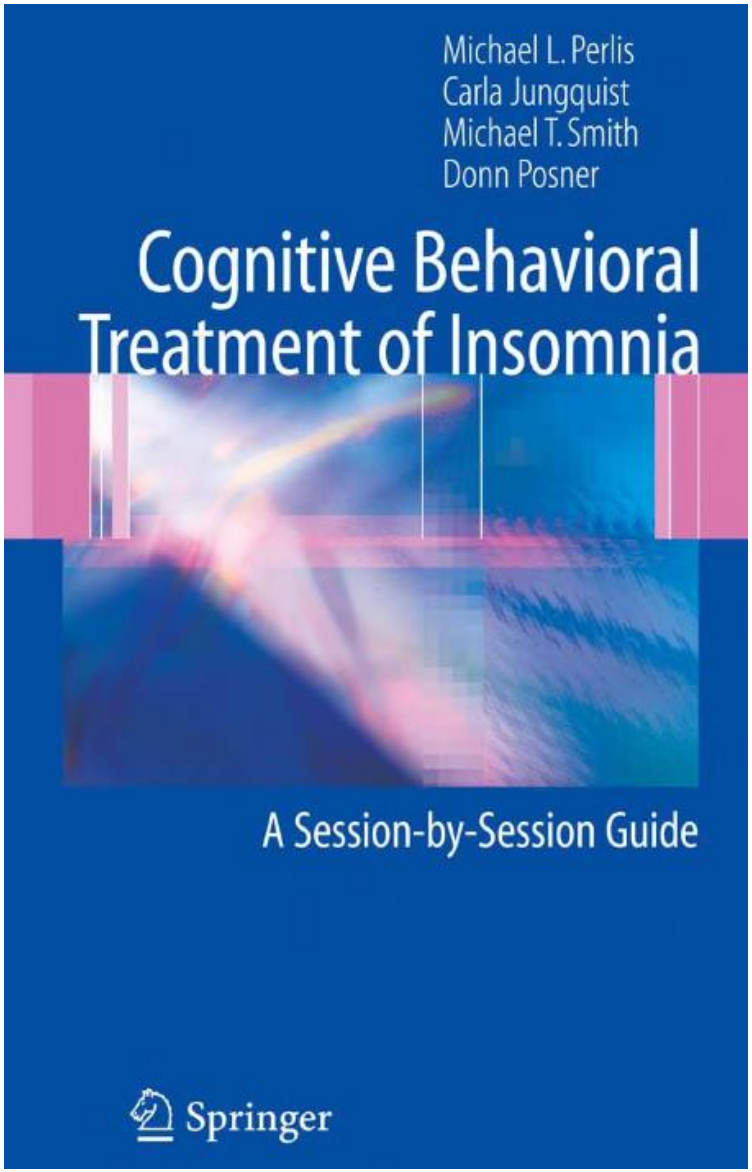
Somryst™

Sleepio

THIS WAY UP

Calm


Behavioral Treatments
for Sleep Disorders
A Comprehensive Primer of Behavioral Sleep Medicine Treatment Protocols
Michael Perlis, Mark Aloia and Brett Kuhn


Michael L. Perlis
Carla Jungquist
Michael T. Smith
Donn Posner
Cognitive Behavioral Treatment of Insomnia
A Session-by-Session Guide
Springer

Assessment

- Clinical interview
- Sleep Diary
- PSG data
- Actigraphy
- Insomnia Severity Index
- Pittsburgh Sleep Quality Index
- Dysfunctional Beliefs About Sleep Qnnaire
- Mood Measure (eg DASS21)
- Quality of life measure (eg ORS)

TWO WEEK SLEEP DIARY

INSTRUCTIONS:

1. Write the date, day of the week, and type of day: Work, School, Day Off, or Vacation.
2. Put the letter "C" in the box when you have coffee, cola or tea. Put "M" when you take any medicine. Put "A" when you drink alcohol. Put "E" when you exercise.
3. Put a line (I) to show when you go to bed. Shade in the box that shows when you think you fell asleep.
4. Shade in all the boxes that show when you are asleep at night or when you take a nap during the day.
5. Leave boxes unshaded to show when you wake up at night and when you are awake during the day.

SAMPLE ENTRY BELOW: On a Monday when I worked, I jogged on my lunch break at 1 PM, had a glass of wine with dinner at 6 PM, fell asleep watching TV from 7 to 8 PM, went to bed at 10:30 PM, fell asleep around Midnight, woke up and couldn't got back to sleep at about 4 AM, went back to sleep from 5 to 7 AM, and had coffee and medicine at 7:00 in the morning.

Today's Date	Day of the week	Type of Day Work, School, Off, Vacation	Noon	1PM	2	3	4	5	6PM	7	8	9	10	11PM	Midnight	1AM	2	3	4	5	6AM	7	8	9	10	11AM
sample	Mon.	Work		E					A				I									C M				

week 1

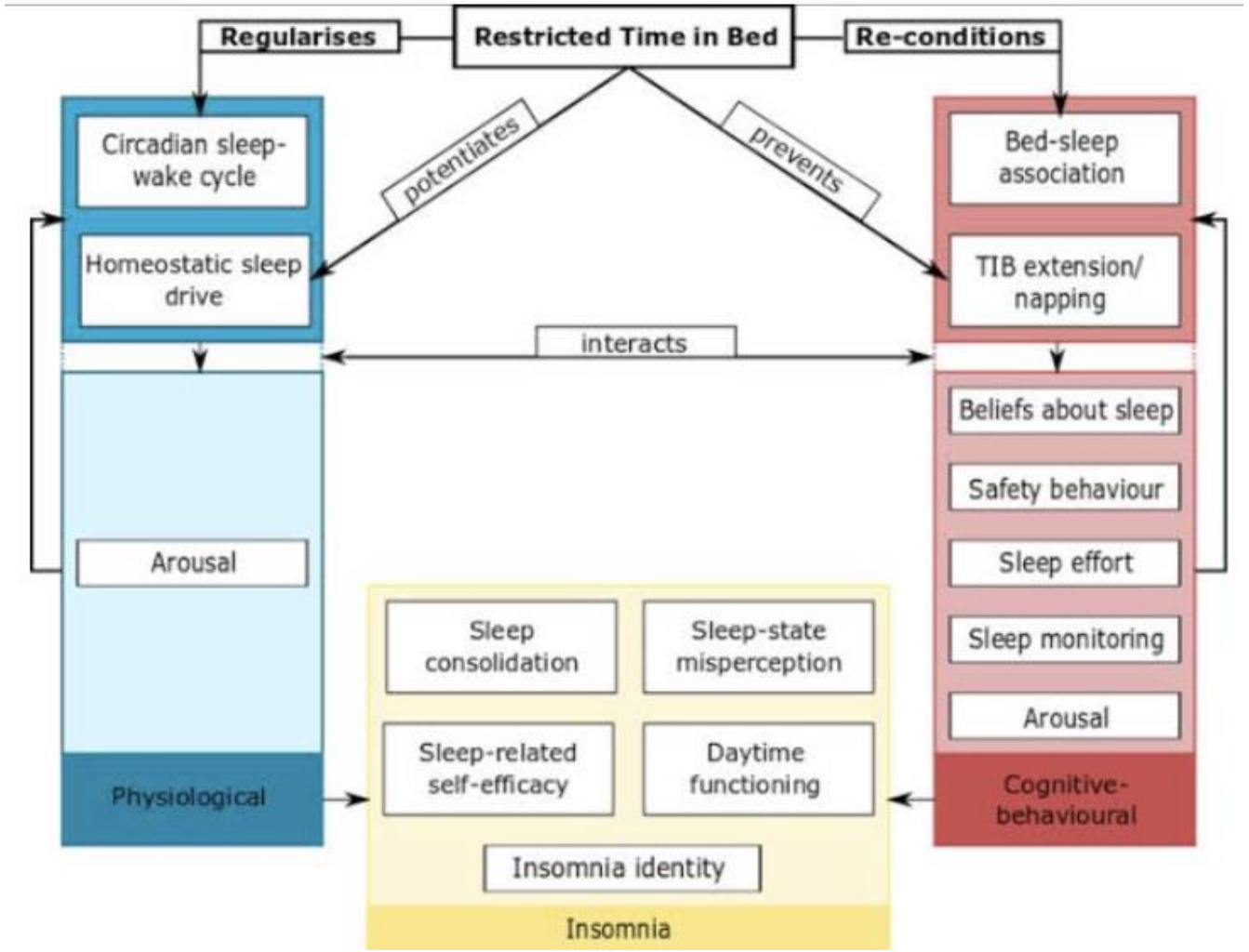
week 2

http://yoursleep.aasmnet.org/pdf/sleepdiary.pdf

Sleep Restriction

- Increase association between being in bed and being asleep
- Time in bed is adjusted on the basis of sleep efficiency (ratio of time asleep/total time in bed x 100%)
- Use sleep diary to calculate SE
- Modify time in bed by ~30 mins every week
  - When SE ≥ 85% increase time in bed, or remain stable
  - When SE ≤85% decrease time in bed
- Adjust until optimal sleep duration is met
- Creates mild sleep deprivation state
- Should not be less than 5 hrs per night
- People like sleep restriction the least, but it is the most effective

How Sleep Restriction Works



Maurer et al 2018 *Sleep Medicine Reviews* DOI: 10.1016/j.smrv.2018.07.005

Stimulus Control

- Reassociate bedroom environment with sleep
- Go to bed only when sleepy: ‘sleep wave’
- Get out of bed if unable to sleep ~ 20 mins, go to another room, return to bed when sleep is imminent
- Use bed/bedroom for sleep and sex only
  - No ‘sleep incompatible activities’ eg. eating, watching TV, listening to radio, planning or problem solving
- Arise at the same time every morning regardless of bedtime
- Avoid napping
- Hide clock displays
- Relaxation and Arousal Management Strategies

Cautions on Sleep Restriction, Stimulus Control and Activity Scheduling

- Caution with bipolar/mania, acute psychosis and seizures
- Some experiences of mild mood elevation with CBTi (Kaplan & Harvey, 2013)
- Monitor for two possible risks:
  - sleep deprivation can increase risk of mania relapse – particularly BD I and women with BD
  - titrate daytime activity levels to guard against hypo/mania

- Recommendations:
  - depression and mania symptoms should be monitored at every session
  - Sleep restriction/stimulus control suspended if symptoms emerge
  - Sleep Compression as an alternative to Sleep Restriction

Morton & Murray 2020 *Clin Psychol Psychother* 27:364–377

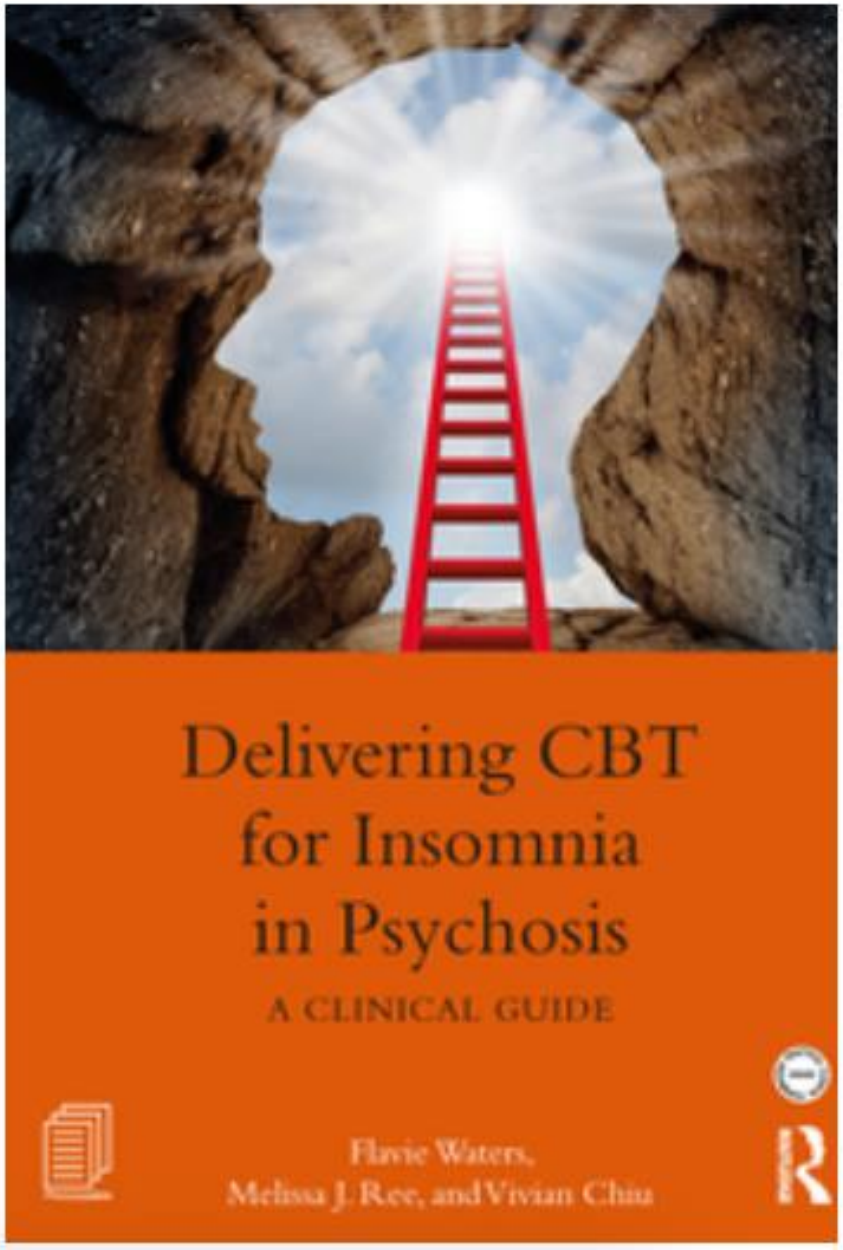
Cognitive Strategies

- Misperception of sleep
- Misattributions about the consequences of lack of sleep
- Worry and rumination

- Cognitive restructuring
- Worry strategies (eg. worry time)
- Problem solving
- Mindfulness meditation emerging as an effective method of managing rumination and cognitive arousal

Sleep Hygiene Education (SHE)

- Avoid stimulants (eg. caffeine, nicotine) for several hours before bed
- Avoid alcohol around bedtime
- Exercise regularly (but not within 1 hr of bedtime)
- Allow at least 1 hour to ‘wind down’ before bedtime
- Keep bedroom dark, quiet and comfortable
- Avoid a heavy meal too close to bedtime
- Maintain regular sleep schedule (especially a consistent wake up time)
- Get some daylight/light exposure in the morning



- Insomnia as changeable cf fixed
- Sleep compression
- Motivational interviewing
- Imagery rehearsal
- Arousal and grounding – managing upsetting images
- Social supports and resources
- Simplified sleep logs and materials
- Medication dosage and timing – collaborative
- Shorter sessions
- More session breaks
- Engaging material, larger font

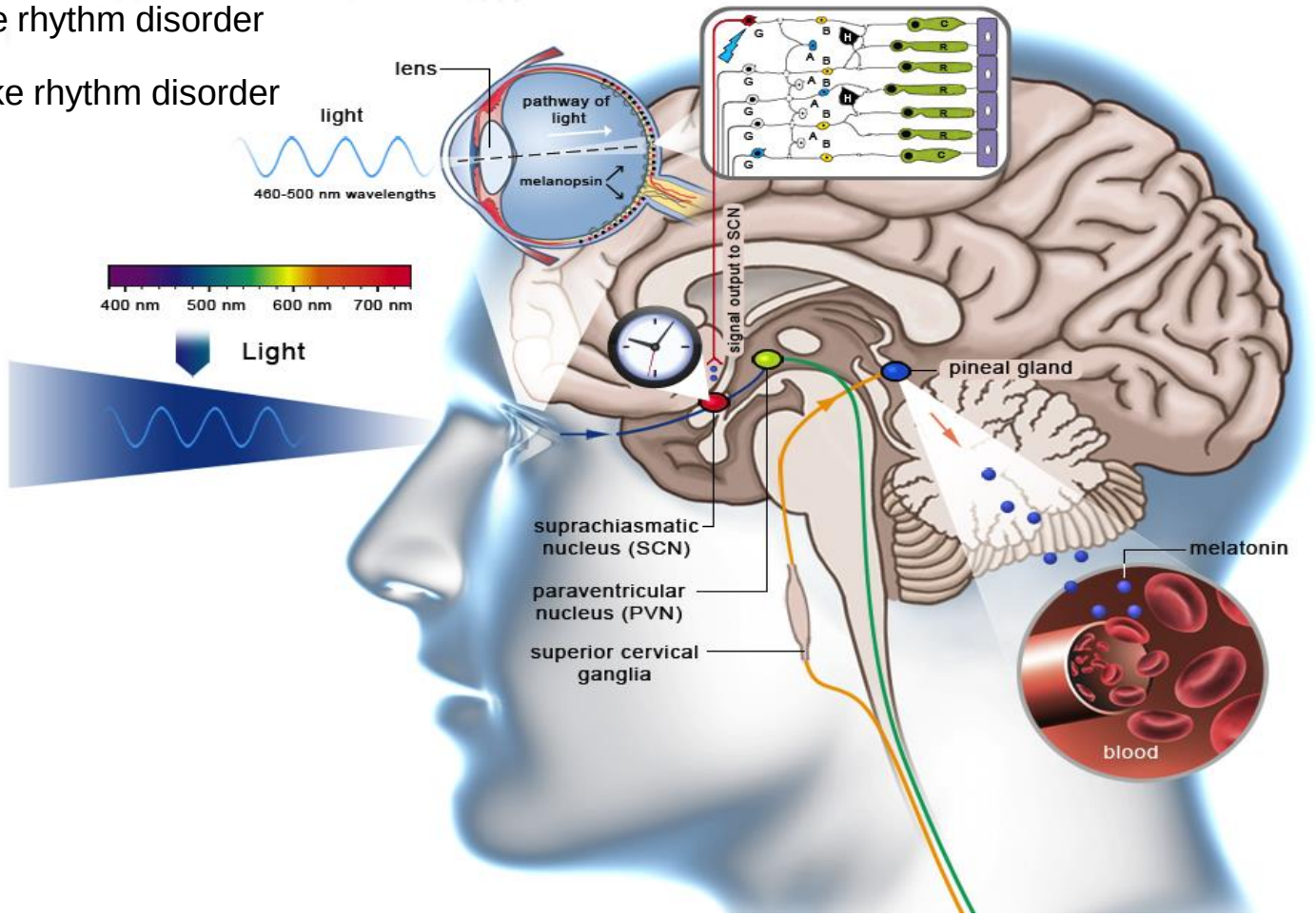
CBTi - BP

- Variant of CBT-I modified for BD
- CBTI-BP aims to improve mood, sleep, and functioning in people with BD
- Eight weekly sessions of 50–60 min
- Additional elements of
  - Interpersonal and social rhythm therapy (IPSRT)
  - Chronotherapy
  - Motivational interviewing

Harvey et al 2015 *J Consulting and Clin Psychol* 83: 564-77

Circadian Rhythm & Disorders

- Delayed sleep–wake phase disorder
- Advanced sleep–wake phase disorder
- Irregular sleep–wake rhythm disorder
- Non-24-h sleep–wake rhythm disorder
- Shift work disorder
- Jet lag disorder



Parasomnias

- NREM-related parasomnias
  - Confusional arousals
  - Sleepwalking
  - Sleep terrors
  - Sleep-related eating disorder
- REM-related parasomnias
  - REM sleep behaviour disorder
  - Recurrent isolated sleep paralysis
  - Nightmare disorder
- Other parasomnias

(a) Exploding head syndrome

(b) Sleep-related hallucinations

Parasomnias & Psychology

Predisposing

- Lack of thalamic inhibition
- Ψ – Relaxation, Mindfulness

Precipitating factors

- Sleep restriction
- Ψ – Problem Solving + lifestyle planning

Perpetuating

- Anxiety + Stress
- Ψ – CBT

Concluding Thoughts

- Sleep disorders are common
  - Insomnia 1/3 life time risk
  - OSA 9% of population
- History and assessment is key
- CBTi is Gold Standard for insomnia management
- Sleep is a key determinant of health and mental health

Thanks for joining us today!

Join us again next week for

Dr Ian Thong and Anthony Hall

‘Medicinal cannabis – the evidence’

Want to see previous webinars? Subscribe to our YouTube channel.
youtube.com/c/InsightQueensland

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