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Cognitive behavioural therapy for chronic insomnia

Summery

Cognitive behavioural therapy for insomnia (CBT-i) including the following components: cognitive therapy, stimulus control, sleep restriction, sleep hygiene and relaxation.
CBT-i may be delivered face-to-face, digitally or using a combination of both.

Indication & Benefits

Chronic insomnia is the third most common psychological reason for GP consultations – most patients prefer not to take medication to overcome this problem.
Chronic insomnia, defined as difficulty either getting to sleep or staying asleep for at least 3 nights per week for at least 3 months, with the sleep symptoms causing distress.
Chronic insomnia increases the risk of developing hypertension and diabetes. It also increases the risk of developing or exacerbating anxiety and depressive disorders.
CBT may improve the following outcome measures (based on sleep diary entries):

- insomnia severity
- sleep onset latency (average time to enter sleep after lights out)
- wake after sleep onset (average time spent awake during the night after first entering sleep)
- number of nocturnal awakenings
- total sleep time (average total night time sleep)
- sleep efficiency (total sleep time divided by average time spent in bed)subjective sleep quality.

CBT is as effective as hypnotics but with better long-term effectiveness and fewer side-effects such as dependence and tolerance over time.

Practical Description

There are five key components of CBT-i.

Cognitive therapy

Aims to identify, challenge and replace dysfunctional beliefs and attitudes about sleep and insomnia. Such misconceptions may include unrealistic expectations of sleep, fear of missing out on sleep, and overestimation of the consequences of poor sleep.

Stimulus control

Behavioural instructions aimed at strengthening the association between bed and sleep and preventing conditioning of the patient to associate bed with other stimulating activities. Such instructions include avoiding non sleep activities in the bedroom; going to bed only when sleepy; and leaving the bedroom when unable to sleep for 15–20 minutes, returning to bed only when sleepy.

Sleep restriction

Behavioural instructions to limit time in bed to match perceived sleep duration in order to increase sleep drive and further reduce time awake in bed. Time allowed in bed is initially restricted to the average time perceived as sleep per night and the adjusted to ensure sleep efficiency remains greater than 85%.

Sleep hygiene

General recommendations relating to environmental factors, physiologic factors, behaviour and habits that promote sound sleep. Specific instructions include advice on control of the bedroom environment, including avoiding visual access to a clock; regular sleep scheduling and avoiding daytime naps; and limiting alcohol, caffeine and nicotine intake, especially before bed.

Relaxation

Any relaxation technique that the patient finds effective can be used to limit cognitive arousal and reduce muscular tension to facilitate sleep. Specific techniques that may be effective include meditation, mindfulness, progressive muscle relaxation, guided imagery and breathing techniques.
Severity of panic attacks are monitored by the patient and are a guide to progress.

Availbility

Face-to-face CBT may be provided by GPs or by other primary care clinicians such as psychologists.
Several CBT-i programs are available digitally (online, downloadable, mobile apps, or on CDs). Some of these are stand alone, whereas others are designed to be used in conjunction with face-to-face therapy.
Costs range from free to around $350.
Digital options may be preferred by some patients and may also overcome issues of limited access to a clinician for face-to-face therapy.

Resources

Tips and challenges

The effectiveness of digital CBT-i may be improved by clinician support so that patients engage with, and continue therapy. The longer patients engage with treatment the better the outcomes.

Training

The Sleep Foundation provides information about sleep disorders at health care practitioners. This Medical Journal of Australia supplement is an example.

Consumer Resources

Information for patients about sleep and insomnia

Digitally available programs include:

- SHUTi is an interactive internet-based program designed by the University of Virginia in the USA. After trialling the program's effects on depression, the Black Dog Institute has negotiated a reduced rate ($175) to enable Australians access.
- Sleep better without drugs is an Australian-based program. The audio files and booklet are separately available for download ($9.99 for MP3 files from a 'preferred supplier' and approximately $9 for the Kindle booklet). It can also be purchased as a physical booklet and CDs for $99.
- Sleepio is a 6 week interactive sleep improvement program accessed via a home computer, tablet or smartphone. There are different subscription options, with a year's access costing approximately US$300.
- CBT for Insomnia is a 5 week program US-based program costing US$45–$60.
- CBT-I Coach is a free smartphone app designed to be used in conjunction with face-to-face therapy. It is available from iTunes and Google Play.

Evidence

Grading

NHMRC Level 1 evidence.

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3. Ritterband LM, Thorndike FP, Ingersoll KS, Lord HR, Gonder-Frederick Li, Frederick C, et al. Effect of a web-based cognitive behaviour therapy for insomnia intervention with 1-year follow-up: a randomized clinical trial. JAMA Psychiatry 2017;74(1):68-75. doi:10.1001/jamapsychiatry.2016.3249

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