



The Association
for Child and Adolescent
Mental Health

coram 
Life Education





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Sleep & Mental Health

With Professor Barry Carpenter & Dr Faith Orchard



Today's learning objectives

- To share the latest evidence-base on sleep and its relationship with wellbeing
- To highlight the role sleep plays in relation to depression and anxiety, and the impact that can have on life at school for your pupils
- To provide recommendations on sleep hygiene techniques to help young people achieve a better night's sleep



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POLL: Which type of school are you representing this evening?



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Improving Children's Sleep; the role a teacher can play

Dr Faith Orchard

Lecturer in Psychology – University of Sussex



Why is sleep important?

Poor quality sleep	Good quality sleep

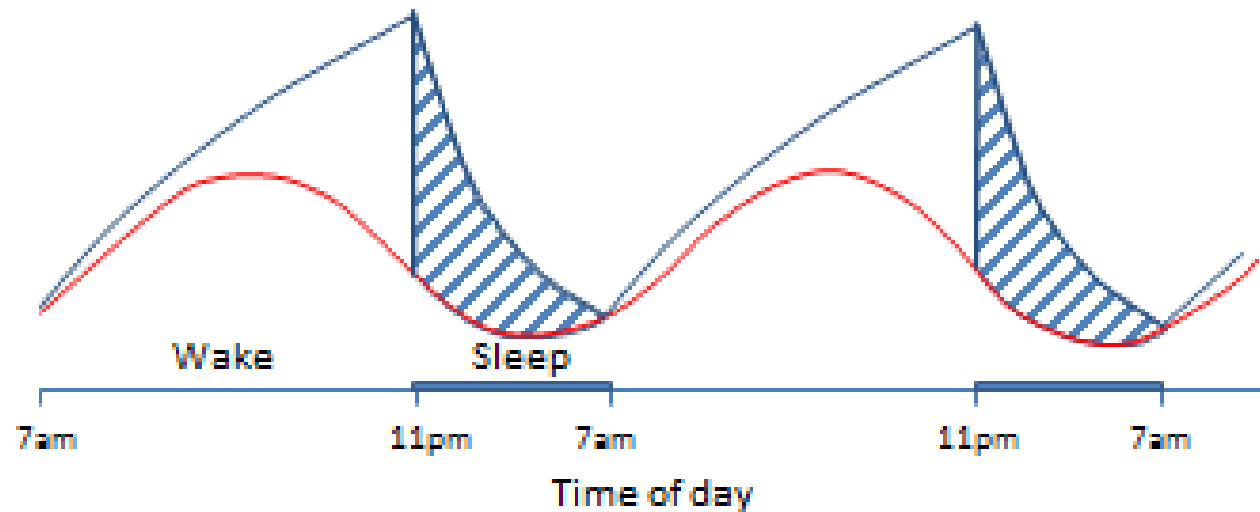


Why is sleep important?

Poor quality sleep	Good quality sleep
<ul style="list-style-type: none">• Mood swings, irritability• Lack of energy, sluggish• Poorer concentration and attention• Increased risk of accidents or injuries	<ul style="list-style-type: none">• Positive mood, better emotional regulation• Feeling more energised• Improved concentration and attention• Better memory, enhanced learning• Growth/ stronger immune system

How we sleep

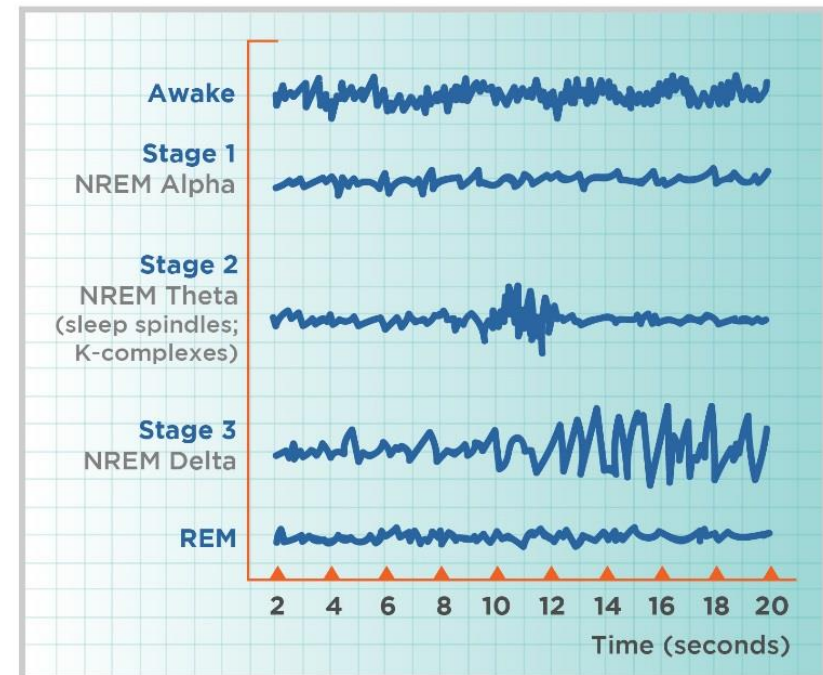
- Two processes involved in sleep and wakefulness
 - 1) Sleep homeostasis: the sleep drive (or pressure)
 - 2) Circadian rhythm: the body clock



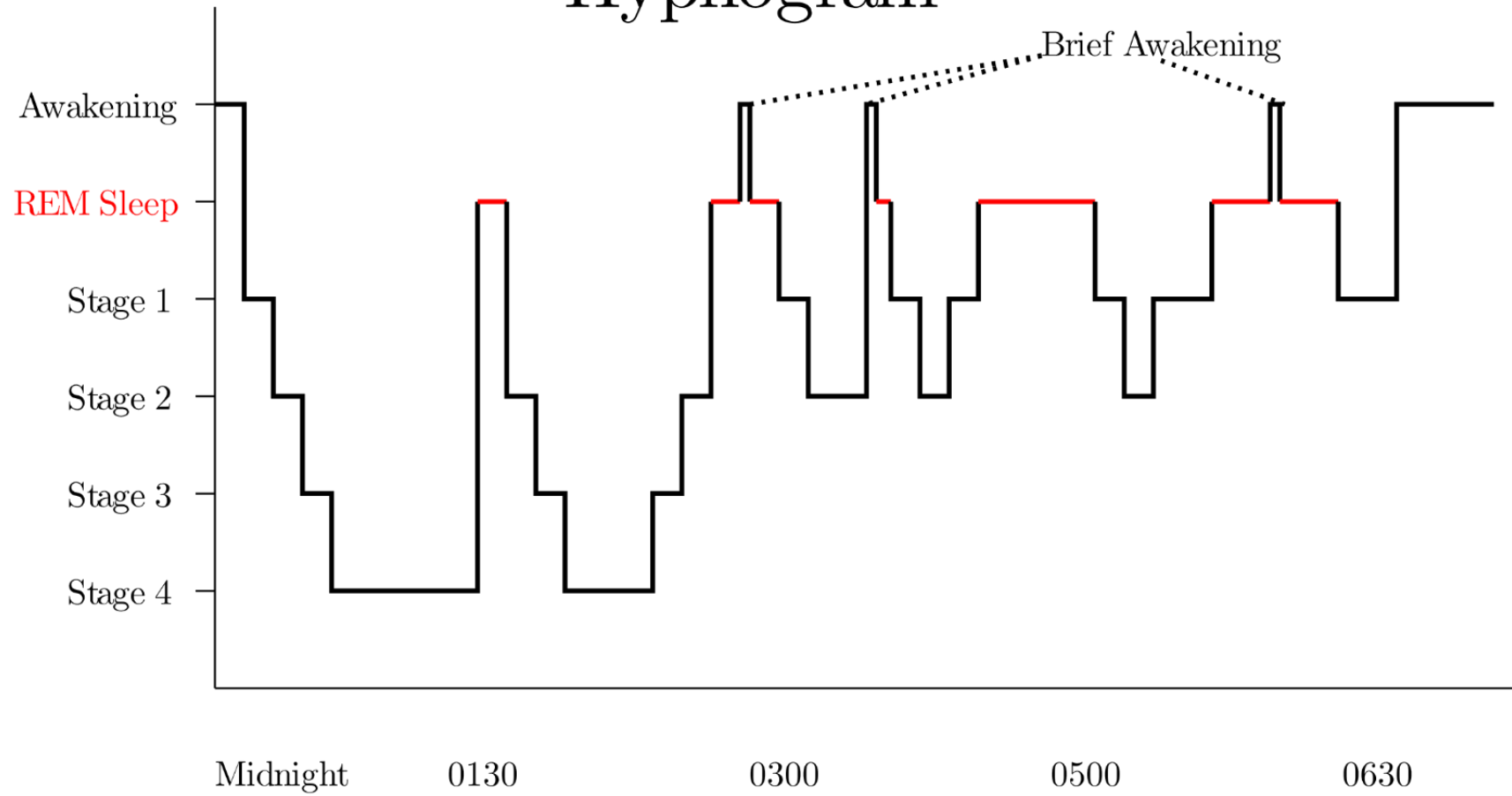
Sleep Stages

- Rapid Eye Movement (REM)
 - Eyes dart rapidly, brain activity is rapid like when we are awake.
 - Breathing is fast and we are most likely to dream in this stage.
- Non-Rapid Eye Movement
 - N1 is lightest, where we may still feel half awake and N3 is deepest.
 - Stages can be differentiated by brain activity, heart rate, breathing and temperature.

EEG RECORDINGS DURING SLEEP



Hypnogram



Sleep across childhood

First years of life

- Body clock develops, start producing melatonin
- Gradual reduction in sleep quantity (12-16 hours at 6 months, 11-14 hours at 1 year)
- Problems involve safety and managing routine

Childhood

- Continued reduction in sleep (10-13 hours preschool, 9-12 school age)
- Wider range of problems, e.g.
 - Insomnia and sleep refusal
 - Nightmares, terrors and sleep walking
 - Movement e.g., restless leg syndrome, head banging, teeth grinding etc.





Teenage sleep

How much sleep is needed?

There are sleep guidelines (Paruthi et al., 2016), that outline what is needed at each age

8-10 hours is recommended for adolescents





POLL: What proportion of teenagers achieve correct amount of sleep?



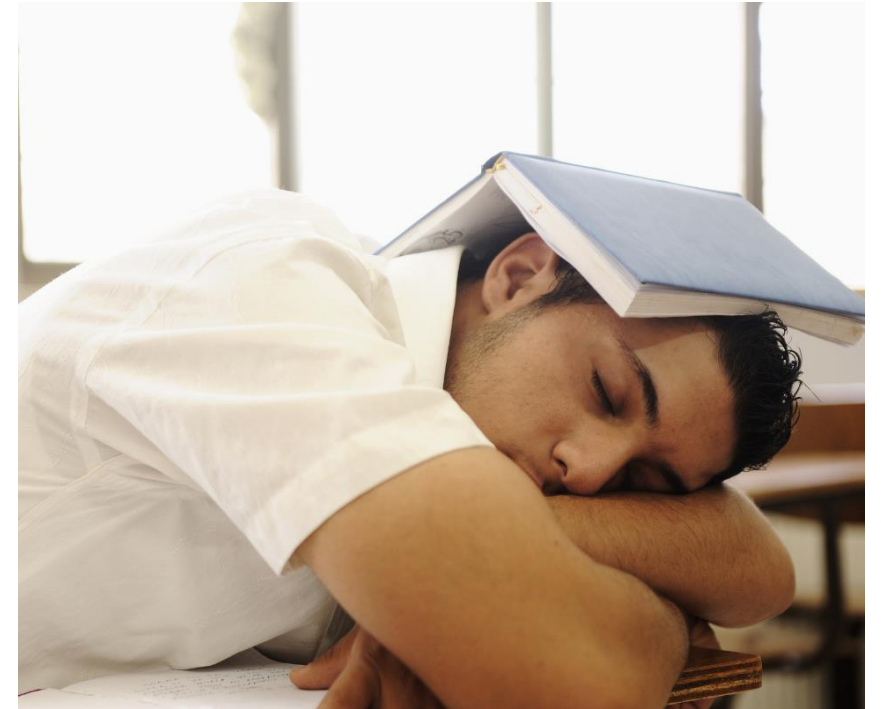
Teenage sleep

How much sleep is needed?

There are sleep guidelines (Paruthi et al., 2016), that outline what is needed at each age

8-10 hours is recommended for adolescents

Gariepy et al. (2020) found that worldwide between 32% and 86% of adolescents obtained the recommended sleep on school nights, and between 79% and 92% on weekends.





Teenage sleep

However, guidelines are controversial and there are extensive individual differences

For example:

Some people prefer to stay awake later and sleep longer in the morning (owls)

Some people prefer early nights and early starts (larks)

The most important thing is whether there is an impact on day to day functioning.





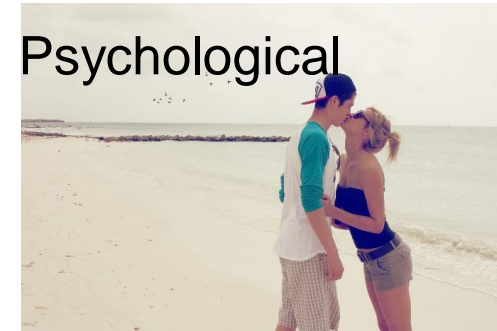
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“The perfect storm” (Carskadon, 2011)



Factors influencing teenage sleep



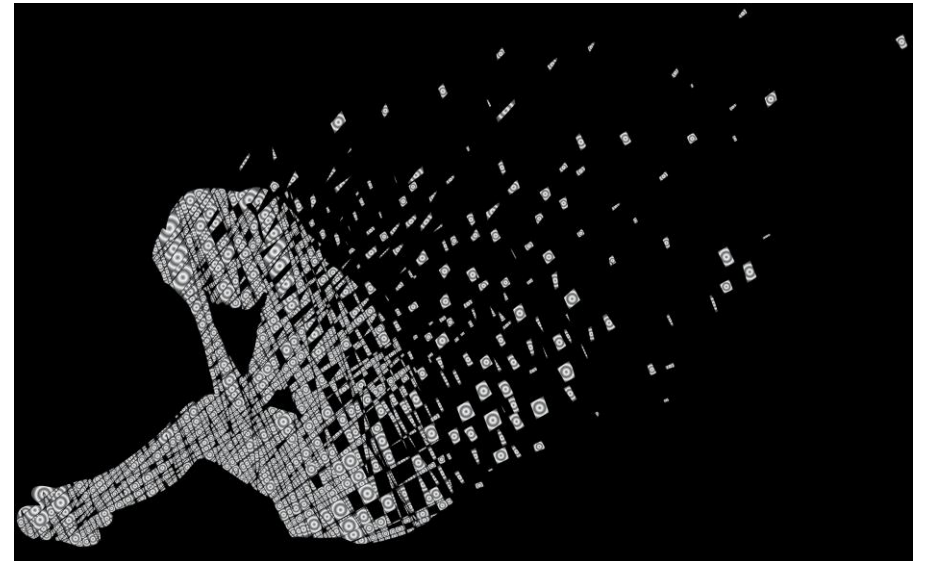
Types of sleep problems

- Insomnia
 - Trouble falling asleep
 - Trouble staying asleep
 - Trouble waking too early
- Hypersomnia
 - Trouble sleeping too much
- Delayed sleep phase disorder
 - Extensive sleep delay (more than normal circadian shift)
- Many other disturbances
 - Parasomnias, circadian reversal etc etc



Sleep problems & mental health

- Sleep commonly occurs alongside many emotional and behavioural difficulties
- Some examples include anxiety, depression and ADHD
- For example, sleep disturbances have been found to be the most common symptom of depression in adolescents (Goodyer et al., 2017)





The relationship between sleep & mental health

The Avon Longitudinal Study of Parents and Children (ALSPAC)

- Study methods:
- At 15 years, 5000 young people took part in a diagnostic interview and completed measures of sleep patterns and sleep quality
- Anxiety and depression was also measured at age 15, at ages 17, 21 and 24.
- We examined whether sleep patterns and sleep quality predict anxiety and depression at ages 17, 21 and 24.



The results

Sleep patterns

- Total sleep time on school nights predicted anxiety and depression at ages 17, 21 and 24 years

Sleep quality

- **Daytime sleepiness, night waking** and perception of **sleep quantity**, all significantly predict anxiety and depression at ages 17, 21 and 24 years





Effect of psychological sleep therapies on depression symptoms

- We conducted a systematic review and meta-analysis
- 49 studies examining effect of psychological treatments for sleep on depression symptoms
- Sleep interventions had a large effect on depression symptoms
- Effect was smaller in adolescents, however only four studies, and none included participants with clinical levels of depression





Psychological treatment techniques

Treating sleep problems

Psychological approaches to treating sleep problems typically involve techniques from Cognitive-Behaviour Therapy for Insomnia (CBT-I). CBT-I has good evidence in adults and adolescents.

- Sleep and psycho-education
- Sleep monitoring (i.e., diaries)
- Thought-challenging
- Sleep hygiene
 - *Create good routines e.g., avoid caffeine in the evening and avoid technology use before bed*
- Stimulus-control
 - *Create good bedroom environment e.g., keeping it cool and dark*
- Sleep restructuring
 - *Use sleep diaries to establish 'sleep prescription' i.e., when to go to bed. Once quality improves, we can improve quantity*

Sleep hygiene tips

- Reducing **caffeine** (especially in the evening)
- Staying active during the day, getting **exercise**
- **Natural light**: opening the curtains, spending time outside
- **Comfortable bed**, cool and dark bedroom.
- Reducing use of **electronics** in the evening (tv, tablets, gaming devices, mobile phones...). 45mins-30mins before bed.
- **Detach** from the day. Complete a daily diary of what you have achieved today and what you have to do tomorrow.
- **Relaxing**, wind down time e.g. bathing, reading, lower lights, comfortable pyjamas



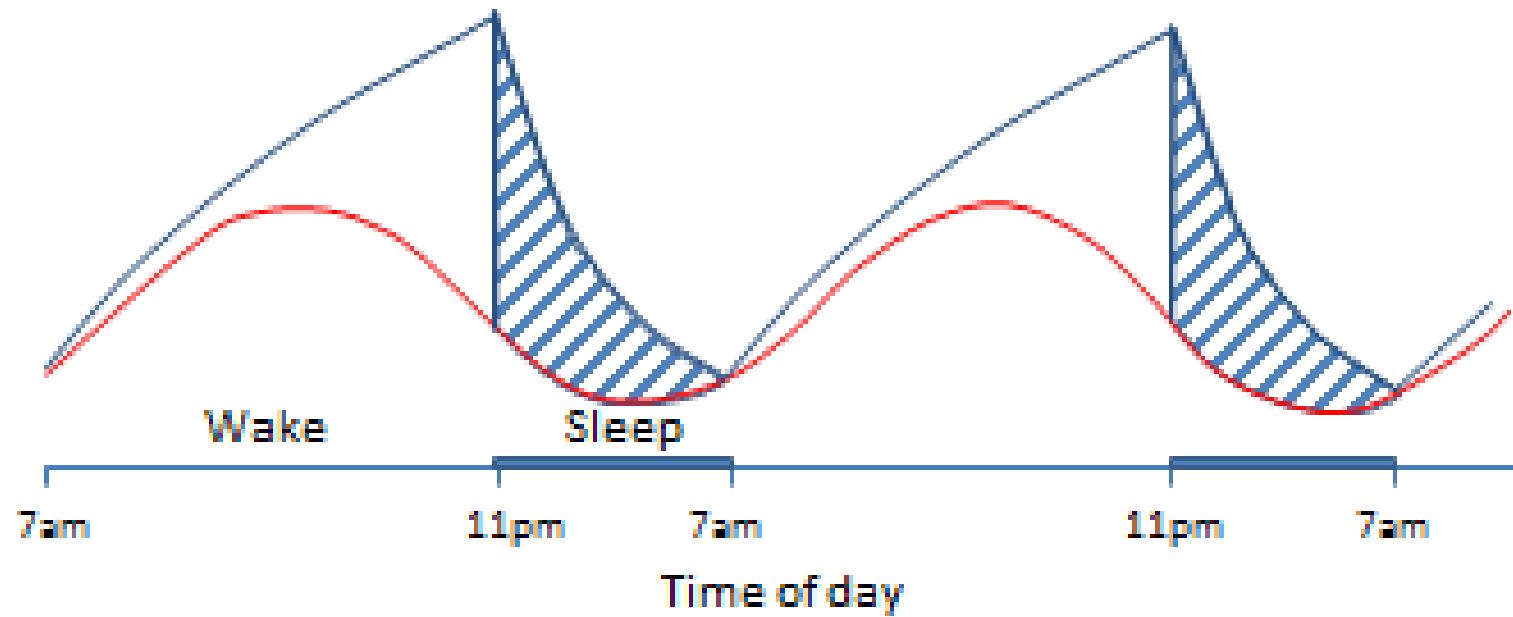


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POLL: Do you think napping can help with sleep problems?

Napping & sleep pressure



Stimulus control

It is important to establish good habits to help sleep.

The key idea is to make sure that the bedroom is **associated with sleeping**, not with being awake and active.



Make sure you use **bed** for **sleep** and not other daily activities

For example:

- Complete homework at a desk or in a separate room
- Watch TV in the living room rather than in the bedroom
- Only sleep in bed.
 - Sleeping in other places, such as on the sofa, weakens the association between the bed and sleep
 - Makes it harder to sleep in bed.

Sleep schedule

- It is important to maintain a similar sleep-wake cycle, so our bodies can get into a rhythm
- Keeping to a **regular** bedtime and waketime
- This includes weekends!
 - Sleep experts recommend a max. 2 hour lie in on the weekend.
- We also don't want to go to bed too early, or we will lie there awake (and exacerbate the problem).

Friend: what time do you usually go to bed?

Me: 10:30ish sometimes 4



Resources



General
public

Parents of
poor
sleepers



<https://www.sleepfoundation.org/>

<http://sleepcharity.org.uk/>



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Ask the Expert – Depression & Anxiety

With Professor Cathy Creswell
3.45pm on 27th January 2022