Psychological and Behavioural Treatments for Sleep Disorders

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Disclosures

- I have received consulting fees and speaker fees from ALTURiX.
- I sit on an advisory board funded by Idorsia and have received speaker fees from Idorsia.
- I receive speaker fees from the British Association for Psychopharmacology.
- I am director of a company (Sleep 360) providing private sleep medicine services.

Structure

- What is cognitive behaviour therapy for insomnia?
- Brief behavioural interventions to integrate into your practice.
- What is imagery rehearsal and rescripting therapy?
- A brief introduction to the technique with some examples.

CBT-I in Psychiatric Conditions

Condition	Improves insomnia	Improves Psychiatric Sx
Major Depressive Disorder	Yes	Yes (possibly as much as CBT for depression)
Bipolar Disorder	Yes	Yes (reduces likelihood of relapse)
Psychotic Disorders	Yes	Yes (reduces delusions)
PTSD (CBT-I + IRT)	Yes	Yes
Alcohol Dependence	Yes	No (no reduction in relapse rates)

Blom, K. *et al.* (2015) 'Internet treatment addressing either insomnia or depression, for patients with both diagnoses: a randomized trial.', *Sleep*, 38(2), pp. 267–77

Harvey, A. G. *et al.* (2015) 'Treating insomnia improves mood state, sleep, and functioning in bipolar disorder: A pilot randomized controlled trial.', *J of Consulting and Clinical Psychology*, 83(3), pp. 564–577.

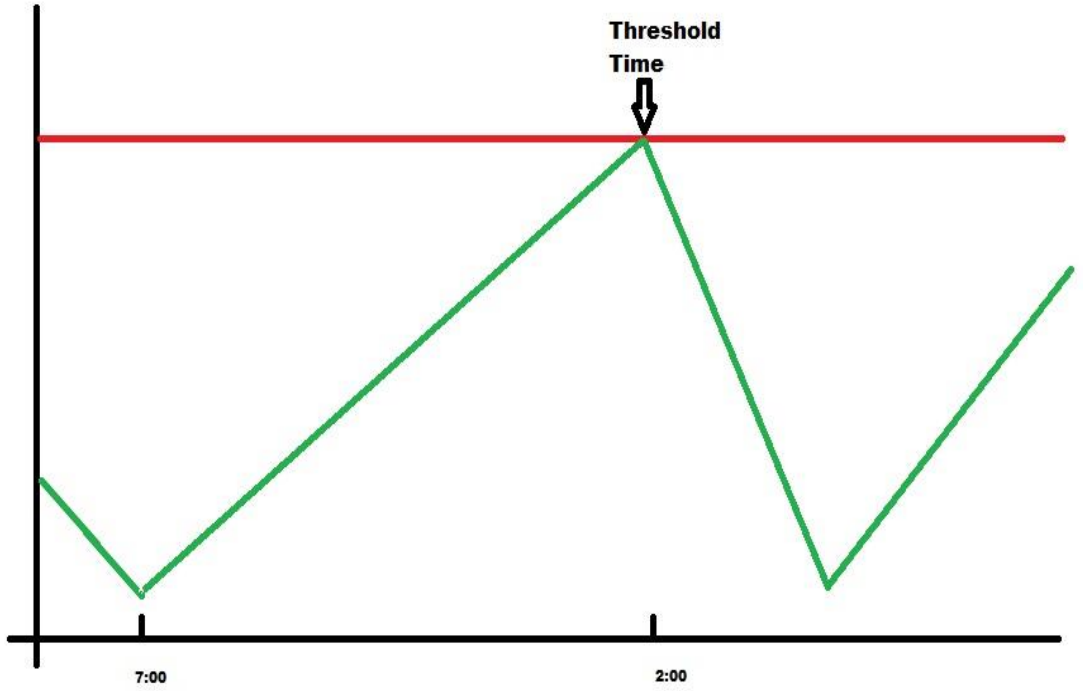
Myers, E., Startup, H. and Freeman, D. (2011) 'Cognitive behavioural treatment of insomnia in individuals with persistent persecutory delusions: A pilot trial', *Journal of Behavior Therapy and Experimental Psychiatry*. Pergamon, 42(3), pp. 330–336. doi: 10.1016/J.JBTEP.2011.02.004.

Ulmer CS, Edinger JD, Calhoun PS. A multi-component cognitive-behavioural intervention for sleep disturbance in veterans with PTSD: a pilot stud. J Clin Sleep Med. 2011;7(1):57-68.

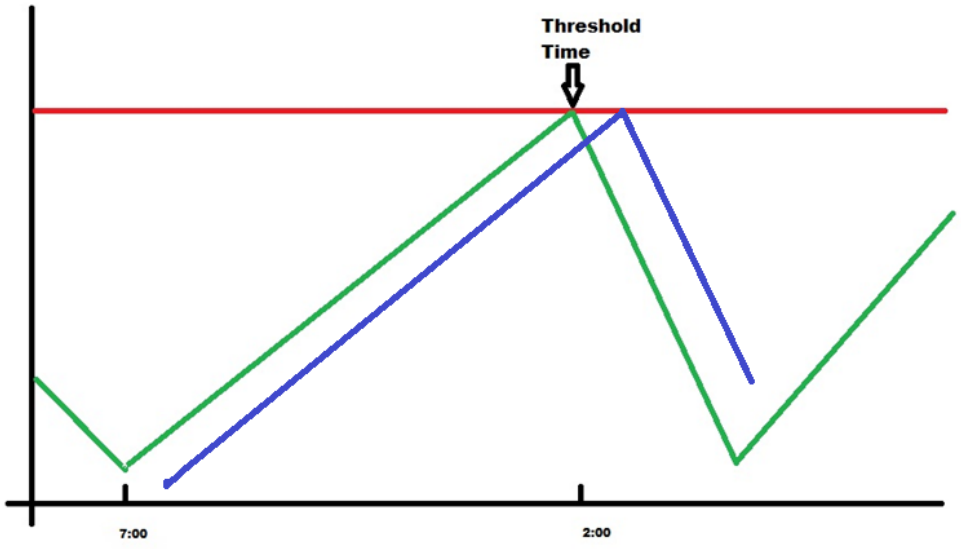
Arnedt, J. T. *et al.* (2011) 'Cognitive-Behavioral Therapy for Insomnia in Alcohol Dependent Patients: A Randomize Controlled Pilot Trial', *Behavior Research and Therapy*, 49(4), pp. 227–233.

The Homeostatic Sleep Drive

- From the moment we wake up in the morning we start to accumulate sleepiness. We are filling up our sleep tank with sleep fuel.
- The chemical substrate of this is probably adenosine.
- When we sleep at night we use up the fuel.
- When we run out of fuel in the morning we wake up.



Start Filling Your Tank at the Same Time Every Day



- Set an alarm to wake up and, get up at the same time every day.
- If you start to fill your tank at the same time every day, it will reach full at the same time every night.
- You will therefore feel sleepy at the same time every night and your bed time will become more consistent too.

Look On the Bright Side of Life

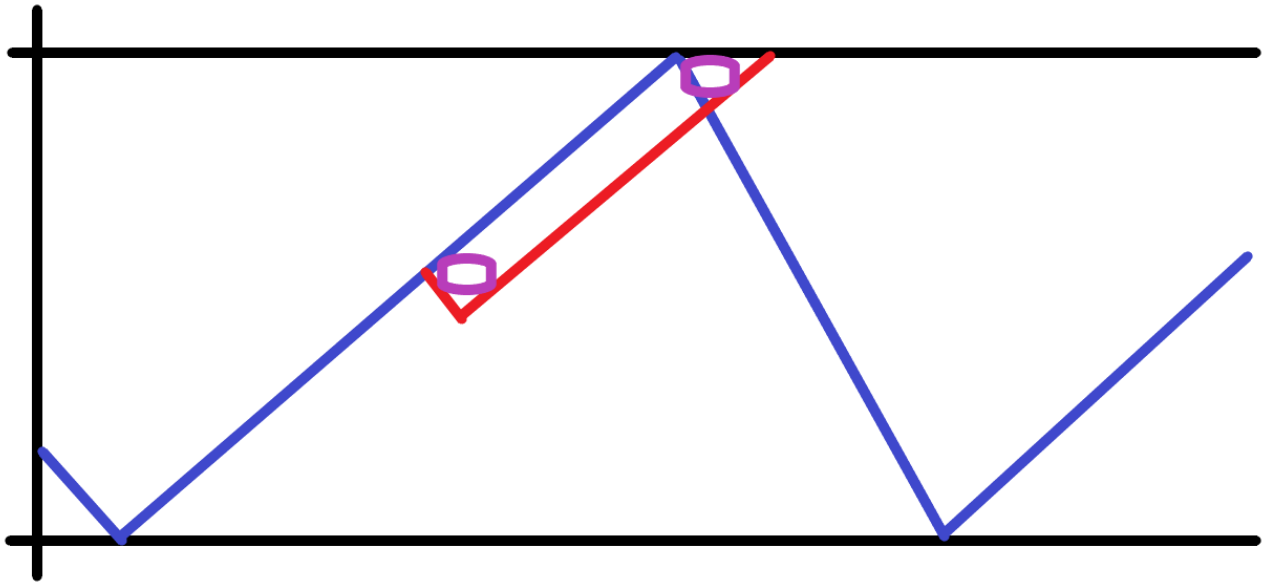
- Get exposed to bright light as soon after waking as possible.
- The best light is daylight, even on an overcast day.
- If this is not possible then a SAD lamp is 2nd best – aim for 30 – 60min with a 10 000 lux light within 45^o of directly in front.
- This helps to synchronise the internal body clock.
- It also increases alertness, making it easier to function.
- It is an effective treatment for Seasonal Affective Disorder (Pjrek, 2020).

RISE UP Protocol: for the patient who needs a bit more get up and go in the morning

- Resist the urge to hit the snooze button.
- Increase activity as soon as possible.
- Shower or wash face and hands – the colder the water the better.
- Expose yourself to light.
- Upbeat playlist.
- Phone a friend.

- This has shown benefit in bipolar patients with sleep inertia (Kaplan, 2018).

Jealously Guard Your Sleep Fuel



- Every time you nap (intentionally or unintentionally) you use up some of your sleep fuel.
- Any sleep during the day is stealing some of your sleep from the night.
- So avoid napping if possible.
- If a nap is unavoidable keep it brief and early!

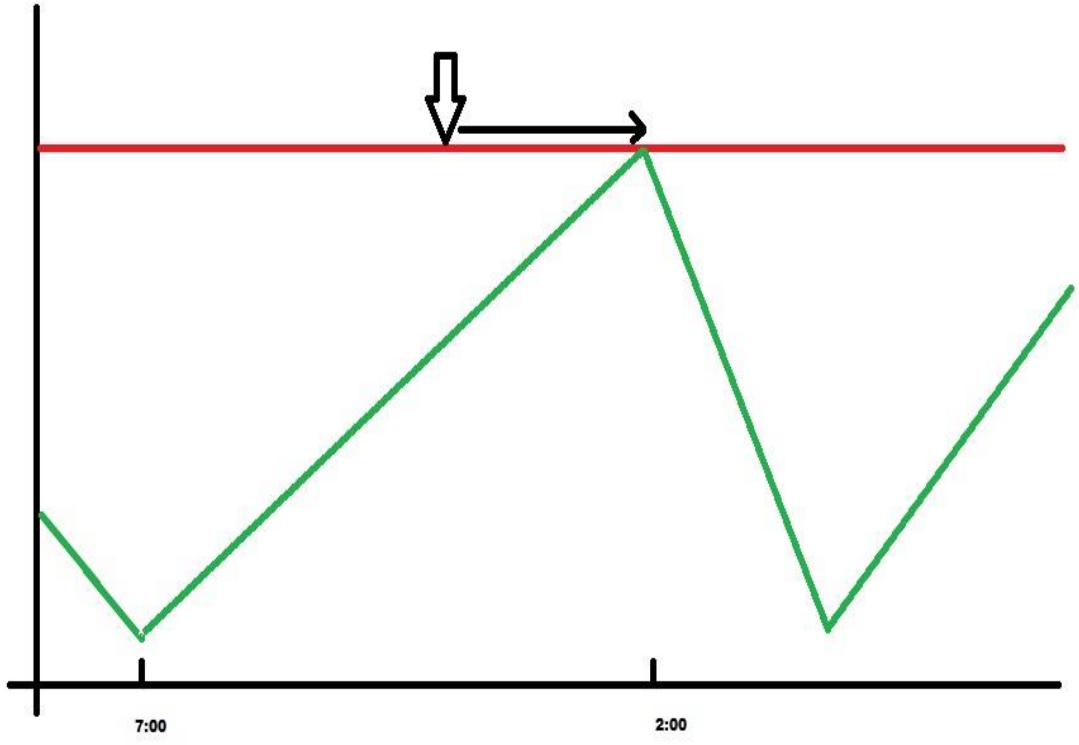
How to Avoid Napping

- Keep a sleepiness diary. Every waking hour for a week rate sleepiness on a scale of 0 – 10.
- This will demonstrate that sleepiness in the day is temporary.
- Recruit friends or family to keep them awake.
- Schedule interactive activities for danger periods.
- Caffeine up to 2pm.
- Bright light, fresh air, physical exertion.
- Chew gum.

Explain Sleep Efficiency

- Sleep efficiency is a measure of how consolidated the sleep is and a reasonable measure of sleep quality.
- Keep a sleep diary for a week, recording Time in Bed (TIB) and Total Sleep Time (TST).
- Sleep Efficiency = TST/TIB x 100.
- A normal sleep efficiency is around 90%.

Go to Sleep When Your Tank is Full

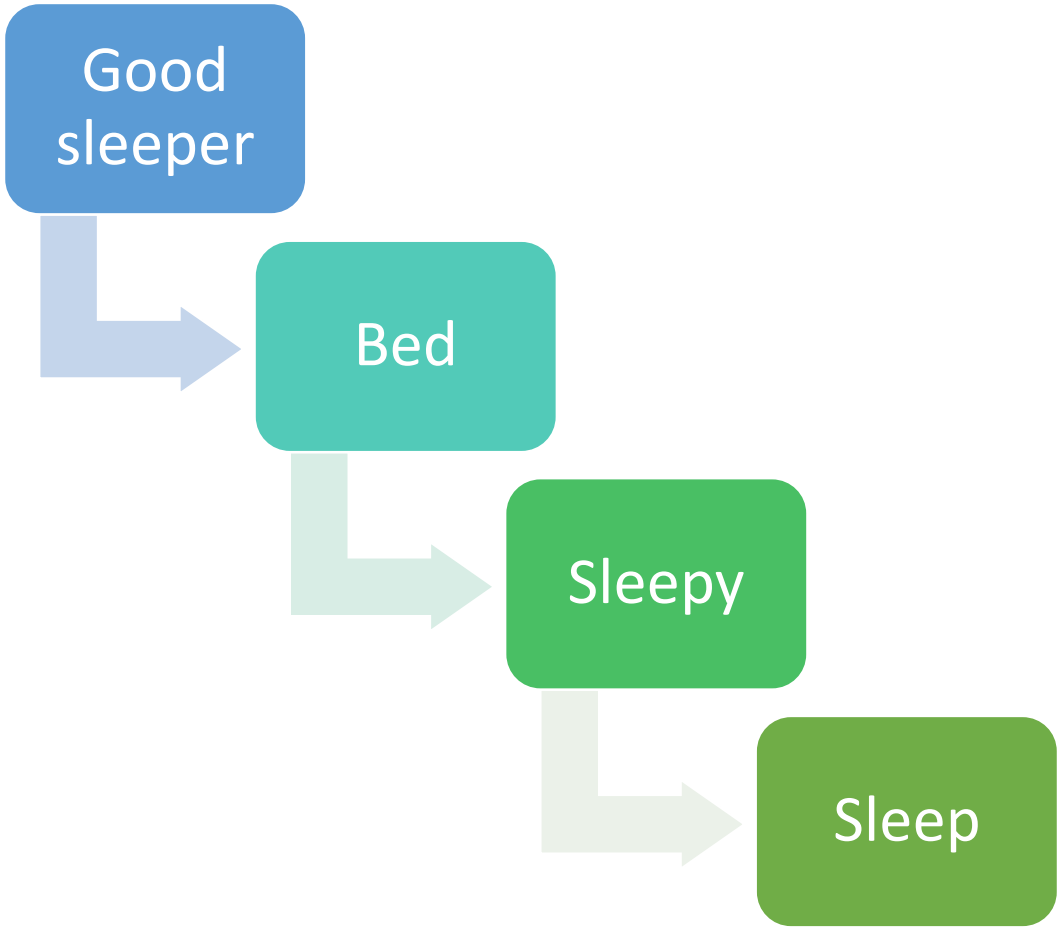


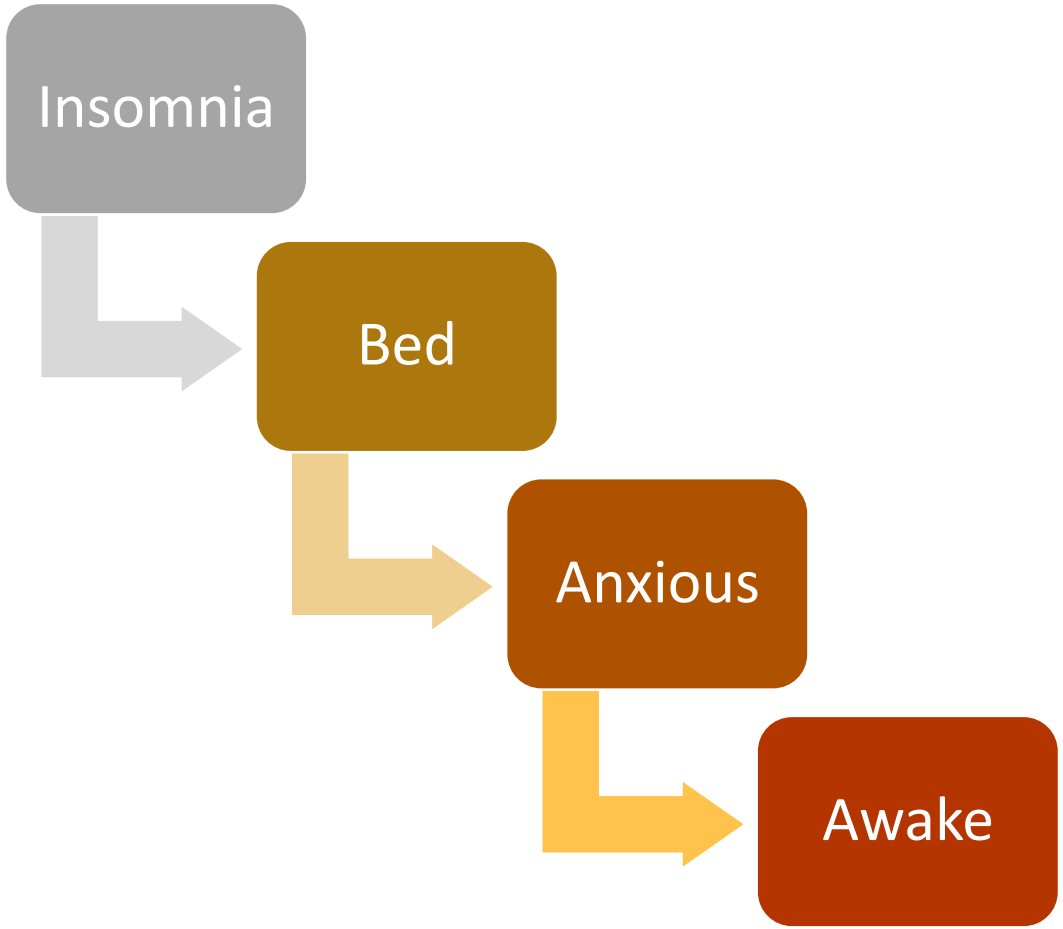
- Set an earliest bed time:
- Earliest bed = Rising time – average sleep time across a week.
- If average sleep time is less than 5 hr then Earliest bed = Rising time – 5hr.
- Only go to bed when you have a) reached that earliest bed time and b) you are sleepy.

Adjusting the Bedtime

- Keep a sleep diary and recalculate the sleep efficiency at the end of each week.
- If the sleep efficiency is less than 85% then move the earliest bedtime 15 min later for the subsequent week (unless they are at the 5hr floor in which case keep it the same).
- If the sleep efficiency is 85-89% keep the earliest bedtime the same.
- If the sleep efficiency is 90% or above then move the earliest bedtime 15 min earlier for the subsequent week.

The Power of Conditioning





Harness the Power of Classical Conditioning 1

Allowed in the Bedroom	Not Allowed in the Bedroom
• Sleep • Sex • Getting dressed and undressed (as long as you don't spend more than a few minutes doing this) **Note: This list is complete. There are NO other activities that are allowed in the bedroom.**	• Reading (yes, reading!) • Audiobooks/radio/TV/music • Computer/iPad • Texting/Talking on the phone • Meditation/Prayer • Relaxing • Exercising • Ironing • Working/Studying • Eating/Drinking • Conversations • Painting/crosswords/knitting etc. **Note: This list is incomplete. ANY other activity you can think of goes in this column!**

Harness the Power of Classical Conditioning 2

- If you go to bed and don't fall asleep; or if you wake in the night and struggle to get back to sleep, and you are having negative emotions, thoughts or body sensations: then get up, get out of bed and out of the bedroom.
- Go to the lounge/kitchen etc and do something pleasant and relaxing.
- Only go back to bed when you **feel sleepy**.
- If you are don't fall asleep and have negative emotions etc. – repeat.
- This will lead to some bad nights and rotten days in the short term.
- But over a period of several weeks the association with the bed will change and the bed will make you sleep.

Modifications

- Some patients may not be able to fully separate their sleep and wake space e.g. if they live in a bedsit. In this case try to keep the bed for sleep only and do all waking activities out the bed. Have different décor for day and night.
- In patients who are unable to leave the bed try to have waking bedclothes and décor and sleeping bedclothes and décor. If not asleep in the night, try sit up and read, listen to a podcast etc but don’t keep trying to sleep.

There needs to be a separation in time between the day and bed.

Buffer Zone

- An hour or two before bed the patient sits for 5 minutes, writes down things that are annoying, worrying them etc. The things they are grateful for, excited about etc
- Then write a to do list for the next day.
- For each of the worries and positives (where possible), write down one single, realistically achievable action they can take the next day.
- Divide this to do list into “Essential”, “Desirable” and “Optional”.
- Then have 1 -2 hours wind down time.
- Always check that to do list the next morning.

Progressive Muscle Relaxation

- Progressively tense and relax muscles.
- Really easy to teach and do.
- May be useful to practice it during day a few times if bedtime is very stressful.
- Effective in insomnia and nightmares.
- Soundcloud: search “RLHIM”, click on PMR and let my dulcet tones chill you out.

Nightmares - Definition

- Repeated occurrences of extended, extremely dysphoric, and well remembered dreams that usually involve threats to survival, security or physical integrity.
- On awakening the person becomes rapidly oriented and alert.
- The dream or the sleep disturbance causes significant distress or impairment in social, occupational or other areas of functioning e.g. mood disturbance, sleep resistance, cognitive impairment, sleepiness.

Nightmares and Suicide

- Nightmares are associated with a 5 fold increase in risk for high suicidality.
- This relationship remains after adjusting for psychiatric diagnosis and symptom severity. (Sjostrom, 2007)
- Nightmares as an independent risk factor for suicide has been confirmed in numerous other studies (Bernert, 2007)

Imagery Rehearsal Therapy - Psychoeducation

- It can be useful to explain the pathogenesis of nightmares to the patient so they understand why they are doing IRT.
- Explain that the goal is not to eradicate nightmares – occasional nightmares probably confer a survival advantage.
- Address the fear that losing the nightmares may be detrimental to mental health.
- Nightmares can be made worse by alcohol. It suppresses REM in the 1st half of the night and this causes a REM rebound in the 2nd half of the night.

Imagery Rehearsal Therapy - Practice

- Explain that the patient does not have to tell you or anyone the content of the nightmare.
- Ask them to select a nightmare that they can recall which was not particularly threatening.
- Ask them to think through the nightmare from beginning to end. It may be helpful for some patients to write it down.
- Ask them to change the nightmare in some way to make it less threatening and even positive.
- They should then mentally rehearse that new version 1 – 2x a day for 1 – 2 weeks.

Example 1

- In my dream I’m walking to the tube to go to work. It’s winter and dark and cold. As I walk I suddenly notice there is no one else on the street and it’s eerily quiet. Suddenly I hear footsteps behind me. I turn but it’s dark and I can’t see who it is but I feel terrified. I start to run but they run too and I hear the footsteps getting closer. I turn around and see a man but can’t see his face clearly. He raises his hand and it has a knife. He charges at me and I try to scream but no sound comes. Then I woke up.

- I’m walking to the tube to go to work. It’s winter and dark and cold. As I walk I notice how quiet it is and I think how nice it is to not be surrounded by traffic noise. Suddenly I hear footsteps behind me. I turn but can’t see anyone. Then I hear my name being called and realise it’s my husband. He runs up to me to tell me he made me lunch and forgot to give it to me before I left. He gives me a kiss on the cheek and walks with me to the tube, holding my hand.

Example 2

- I am walking in a forest. It's night and dark. I feel an evil presence somewhere but can't work out where. I walk into a clearing and I see Freddy Krueger there in front of me. I want to run but it's like my legs have lost all power and I can barely move. I try to shout for help but nothing comes out. All around me in the forest are glowing red eyes and I realise they are wolves, surrounding me and closing in to kill me. Freddy Krueger smiles a terrible smile and I know I am done for. My heart is racing and I can hardly breathe. Then I woke up.

- I am walking in a forest. It's night and dark. I feel an evil presence somewhere but can't work out where. I walk into a clearing and I see Freddy Krueger there in front of me. I want to run but it's like my legs have lost all power and I can barely move. I try to shout for help but nothing comes out. All around me in the forest are glowing red eyes and I realise they are wolves, surrounding me and closing in to kill me. But then I realise that wolves are just wild dogs. I like dogs and they like me. It's not me they're hunting but Freddy. He realises it too and I see the fear in his eyes. And as soon as I see his weakness I magically make a cage fall from the sky, trapping Freddy. The wolves surround the cage to guard it and I walk away.

Imagery Rehearsal Therapy - Progress

- Once the new script has been rehearsed for a week or two the distress from the nightmare will dissipate.
- Then select s slightly more threatening nightmare and repeat the process.
- Nightmares feel like something that happen to the patient. The patient feels no control and the more they avoid thinking about them the less control they have.
- IRT reframes them as suggestions. The nightmare suggests a storyline but the patient actively decided whether to accept the story as is, or change it into something they like. This gives them the control.

Questions?