

The science of sleep for optimal performance and well being


Unit 7: Sleep and Exams: Strange Bedfellows

Can you remember a night when you were trying and trying to get to sleep because you had a massive test in the morning? Did you notice how the more you wanted to sleep, the more sleep seemed to evade you?

You probably remember our earlier discussion about the circadian clock, which will take care of sleep for you in most circumstances. However, worrying about getting to sleep can actually freak you out enough to get in the way of the body's own internal sleep drive which under normal circumstances allows you to fall asleep at the appropriate time.

Below are five worry busting strategies that might help ease your anxiety about sleep on the night before an exam, or at other times when you can't stop thinking about sleep.

## Worry busting strategies:

1. Realize sleep on any one night isn't all that important: as long as you're allowing body enough time to relax. You will fall asleep whenever (if ever) your sleep drive pushes you over the dreamland edge. You body is not trying to sabatoge your success. This might seem counterintuitive. You've learned in this program that good sleep can improve pretty much everything, so you're probably dying to get it every night. However, you need to stay focused on the big picture. Just like one double fudge cookie milk shake will not add 50 pounds to your frame, one sleepless night will not singlehandedly cause your ruin. Sometimes you may sleep less because you are stressed. Stressing about not sleeping is bound to make things worse. As long as you sleep well on most nights you will be fine. Research has demonstrated that people with insomnia who only sleep a few hours during the night do not suffer the cognitive performance deficits suffered by people who are forcibly deprived of sleep (like night-shift workers). Your body will adapt to less sleep on a few nights.
2. Make a list of things you have to do the next day. This may sound unrelated, but lots of people sit up in bed thinking about the next day's activities. They're so worried about remembering they lose sleep...which screws up their memory. At night if you are in bed and begin to worry about remembering things you have to do the next day, draw up a quick list. Then you can drift into sleep without making a thousand mental notes that clog your brain and keep you up.
3. Schedule a worry time: Seem completely off the wall? Not so. If you tend to worry a lot about things that you can't control- take control. Pick a time during the next day to think about what you have on your mind. Worrying productively may help you put things in perspective, break a problem into
manageable parts and get things done. Psychologist Marty Seligman came up with a nice way to organize productive worry time:

When faced with a difficult or distressing situation:

1. Take a mental or written inventory of the following:
a) What's the worst possible thing that might happen to me as a result of this situation?
b) What's the best possible outcome that could result from this situation?
c) What's the most likely outcome of this situation?
2. Then, come up with a plan, based on the following:
a) What can I do to prevent the worst possible thing from happening?
b) What can I do to increase my chances of the best possible outcome?
c) What steps can I take to improve the situation for me and others involved in the event that the most likely outcome occurs?

Organized worrying helps in lots of situations, not only with anxiety about sleep. If you are worrying about sleep you may find that after considering "the worst possible outcome" (perhaps feeling falling asleep during class), the prospect of not getting enough sleep isn't that frightening. Lots of people fall asleep during class, and no one ever died from it. Also, you might identify some specific things you can do to help yourself unwind before bedtime so that sleep is more likely to happen, such as practicing mindfulness breathing and taking at least a few minutes after studying to unwind and enjoy the end of your day.

When it's time for bed the next night, you will have completed your scheduled worry time and it will be more likely you can switch off your anxious thoughts and switch into sleep mode.
4. At bedtime, try taking a mindfulness approach to worry. Start by briefly practicing mindfulness breathing for a few minutes. Then, see if you can apply a mindfulness perspective to the experience of going to sleep. Remember that mindfulness is all about being in the moment, on purpose, in a gentle-with-self, non-judgmental way. A mindfulness perspective can be applied to almost any experience. You can practice mindfulness by allowing yourself to fully experience the moment, without any attempt to judge, problem solve, or change the situation. In short, you are in the mode of "being" rather than in the mode of "doing". In this mode you can allow yourself to be curious rather than judgmental about thoughts, feelings, body sensations, etc. If you notice yourself worrying or thinking judgmental thoughts, simply be "curious" about these thoughts, too, and allow yourself
to let them go, bringing your attention back to the present moment. You may find that a mindfulness perspective takes the anxiety out of bedtime before big exams and at other times when you're hoping to get a lot of sleep. And, if a mindfulness perspective with no specific focus is not working, you can return to focusing on your breathing whenever you wish.

A mindfulness perspective is the opposite of active problem solving to change things. Sometimes, the more you want to get rid of a thought, memory, worry, or emotion so you can sleep the larger it grows. Here is a simple analogous example illustrating this process:

Read the following numbers: 8, 9, 10
Now allow yourself to forget them...
Three weeks from now, if someone asked you to repeat these numbers, there is a good chance you will have successfully forgotten them. Now, what if we tell you that we'll give you ten million dollars if you can successfully forget these numbers? If you believe us, then you will probably be less likely to "succeed" at forgetting the numbers.

The process of switching from wakefullness to sleep, like forgetting a number, is a passive process. Sometimes, the harder one tries to force sleep, the less likely the passive process will occur. The good news is that with enough time, sleep debt builds to the point that sleep takes over in spite of whatever else the mind might be doing.
5. Learn to talk back to negative thoughts that increase worry about sleep. Thoughts and emotions feed off each other. Anxious feelings about not being able to fall asleep feed off negative thoughts like, "I'm going fail my exam tomorrow because I can't get enough sleep." Learning to talk back to these thoughts can be helpful.

The best time to begin this exercise is during the day after a night when worrying about sleep seems to have made sleep more difficult. Use the worksheet below to help.

1. Write down the specific situation. For example, Jakki wrote "Laying in bed the night before my calculus final, unable to fall asleep."
2. Record the names of the emotions that you felt. Jakki wrote "anxious, worried, and scared."
3. Write the thoughts that ran through your mind when you felt these emotions. These can be the thoughts you actually remember, or the thoughts you have currently as you think back and reflect on the specific situation and the emotions you felt. Jill wrote the following thoughts: "I'm going to be up all night, and I have my calculus exam tomorrow!" "I'm going to feel terrible"
and
"I'm going to fail my exam."
4. See if you can come up with a more positive thought to replace each negative thought. Here are a few strategies that can help you.
a) Check out the evidence. What evidence is there that the negative thought is accurate? For example, Jakki might remember the fact that she's never actually failed an exam (unless you count her cursive exam in third grade).
b) Even if the negative thought is accurate, is it realy the end of the world? Jill might decide that staying up will make her irritable the next day. So she'll avoid telling people off and maybe just avoid people in general; nothing terrible will happen.
5. Negative thoughts reinforce unpleasant emotions that can make sleep more difficult. Cogntive therapy helps people learn to talk back to negative thoughts in order to reduce unpleasant emotions. Talking back to negative thoughts is an important skill to have. Sometimes it does even help to say it out loud; wear a phone earpiece and nobody will suspect anything.

On the next two pages, you will find a cognitive therapy thought record completed with the example from Jill, followed by a blank form you can use.

Cognitive Therapy Thought Reframing Exercise:
Specific situation: Laying in bed the night before my calculus final, unable to fall asleep

| Emotions I felt <br> during this <br> situation | Negative thoughts that ran <br> through my mind | More balanced alternative <br> thoughts |
| :--- | :--- | :--- |
| Anxious | I'm going to be up all night, <br> and I have my calculus <br> exam tomorrow. | I've been through this <br> before, thinking I'll be up all <br> night. However, I've always <br> fallen asleep eventually. <br> Chances are, I'll fall asleep <br> eventually tonight too. |
|  | I'm going to feel terrible <br> tomorrow. | Maybe... but so what. I've <br> been through this not- <br> sleeping-well thing before. <br> So, I might not feel at my <br> best tomorrow. Not a big <br> deal. Nothing terrible has <br> ever happened to me <br> because I didn't sleep much <br> and felt less than 100\%. |
|  | I'm going to fail my exam. | I've passed all of my <br> calculus exams before, even <br> though I've been too <br> anxious to sleep well the <br> night before most of them. |

Cognitive Therapy Thought Reframing Exercise:
Specific situation:

| Emotions I felt <br> during this | Negative thoughts that ran <br> through my mind | More balanced alternative <br> thoughts |
| :--- | :--- | :--- |

Below is a list of common negative thoughts that get in the way of sleep.

1. I won't feel well during the day unless I get eight hours of sleep.
2. If I don't get enough sleep tonight, I'm not going to be able to get anything done tomorrow.
3. If I don't get enough sleep for a few days in a row, I'll have a nervous breakdown.
4. When I have trouble getting to sleep, I should stay in bed and try harder.
5. After a poor nights sleep, it will be hard for me to focus on my academic work.
6. If I can't get to sleep soon, I'm going to fail my test tomorrow.
7. I won't be able to write tomorrow if I don't get enough sleep tonight.
8. If I don't get enough sleep, I'm going to look horrible tomorrow.
9. If I'm feeling irritable, depressed, or anxious during the day, it's mostly because I didn't sleep well the night before.
10. Without an adequate night's sleep, I can hardly function the next day.
11. When I sleep poorly on one night, I know that it will disturb my sleep schedule for the whole week.
12. When I feel tired, have no energy, or just seem not to function well during the day, it is generally because I did not sleep well the night before.
13. I get overwhelmed by my thoughts at night and often feel I have no control over my racing mind.
14. Not being able to sleep well makes it hard for me to enjoy life.
15. Difficulty sleeping prevents me from doing things that are important to me.

## Follow-up on the success of your sleep scheduling efforts:

1. Use your sleep log to calculate the total number of hours you have slept over the last week.
2. Divide by 7 to determine the average number of hours you sleep every night.
3. Determine the average time it takes every evening to fall asleep.
4. Determine the total average amount of time you spend in bed awake.

Here is how to make adjustments to your recommended sleep schedule, if needed:

Determine if both of the following have been true for you over the last week.

1. Are you able to fall asleep, on average, within 30 minutes at night?
2. Do you spend, on average, less than 45 minutes lying in bed awake during the night?

If you answer "yes" to both questions above, consider how refreshed you feel during the daytime. Are you tired during most daytime hours? If so, you should probably continue with your current sleep schedule. On the otherhand, if you are sleeping well during the time you schedule for sleep but remain tired during much of the day, try adding $1 / 2$ hour to your sleep schedule, consistently getting up $1 / 2$ hour later or going to bed $1 / 2$ hour earlier, depending on your personal preference and scheduled obligations.

If you answer "no" to one or both of the questions listed above, consider making some adjustments. Are you waking up at the same time every morning? Are you avoiding alcohol late in the evening and coffee after lunchtime? If you haven't done so already, try eliminating all caffeine after lunch time and all alcohol entirely. Be sure to avoid daytime naps longer than one hour and to avoid taking naps late in the evening. If you are already doing all of these things and are still consistently unable to fall asleep in less than 30 minutes after going to bed, or if you are spending a total of 45 minutes or more during the night lying in bed awake, consider reducing the number of hours you are scheduling for sleep by $1 / 2$ hour.

However, do not restrict nighttime sleep to less than 6 hours per night. Even if you are not able to sleep for six hours in a row, allow yourself to relax in bed during six consecutive hours per night, so your body can sleep as much as it wants to during that period of time.

## Practice Suggestions:

1. From the list of worry busting strategies above, pick the one or two that seem like the best fit for you. Practice over the next week.
2. Continue following your sleep schedule, with adjustments determined as above if needed.
3. Continue to use the 30 second sleep diary.

## Thirty Second Sleep Diary:

|  | $\begin{gathered} \text { Day } \\ 1 \end{gathered}$ | $\begin{gathered} \text { Day } \\ 2 \end{gathered}$ | $\begin{gathered} \text { Day } \\ 3 \end{gathered}$ | $\begin{gathered} \text { Day } \\ 4 \end{gathered}$ | $\begin{gathered} \text { Day } \\ 5 \end{gathered}$ | $\begin{gathered} \text { Day } \\ 6 \end{gathered}$ | $\begin{gathered} \text { Day } \\ 7 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Time you went to bed last night: |  |  |  |  |  |  |  |
| Time you got out of bed this morning: |  |  |  |  |  |  |  |
| Number of minutes you estimate it took you to fall asleep last night: |  |  |  |  |  |  |  |
| Number of times you remember waking up in the middle of the night: |  |  |  |  |  |  |  |
| Total number of minutes you estimate you were awake in during the night: |  |  |  |  |  |  |  |
| Total amount of sleep you had last night: |  |  |  |  |  |  |  |
| Number (none $=0$ ) alcoholic beverages you consumed before going to bed last night: |  |  |  |  |  |  |  |
| Did you take any sleeping medication last night (record "yes" or "no")? If yes specify. |  |  |  |  |  |  |  |
| How much did you enjoy sleeping last night?    <br> 0 1 2 3 <br> Not at all   Very much |  |  |  |  |  |  |  |
| $\begin{array}{lccc}\text { How refreshed do you feel this morning? } \\ 0 & 1 & 2 & 3 \\ \text { Not at all } & & & \text { Very much }\end{array}$ |  |  |  |  |  |  |  |

Adapted from Morin, C.M., and Espie, C.A., Insomnia: A Clinical Guide to Assessment and Treatment, Springer 2004.

