

Intervention to Reduce Use of Safety Behaviors

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PROTOCOL NAME

Intervention to reduce use of safety behaviors.

GROSS INDICATION

This intervention is an approach to reducing the use of safety behaviors. Safety behaviors include overt and subtle attempts to cope with inadequate sleep and to increase control over sleep. Safety behaviors are problematic because they increase the symptoms of the disorder and/or prevent disconfirmation of unhelpful beliefs about sleep.

SPECIFIC INDICATION

There is no evidence that this form of therapy is differentially effective for subtypes of insomnia.

CONTRAINDICATIONS

There is currently no evidence relating to contraindications. However, based on clinical experience, this treatment modality may be difficult to utilize when the context requires therapy sessions that are shorter than 50 minutes (because most behavioral experiments need time to set up and then, in a subsequent session, to debrief).

RATIONALE FOR INTERVENTION

Safety behaviors include overt and subtle attempts to cope with inadequate sleep and to increase control over sleep [1]. A key point to note is that safety

behaviors arise from beliefs/worries about sleep such as “I can’t cope without 8 hours sleep”, or “If I don’t get to sleep I have to make up for it by napping or conserving my energy”. Unfortunately, safety behaviors serve to prevent disconfirmation of these beliefs, and many safety behaviors have the effect of increasing the likelihood of the feared outcome [2,3]. For example, safety behaviors can impact [4]:

- the regularity of the sleep cycle (e.g., sleeping late in the morning, napping during the day, going to bed early);
- getting to sleep (e.g., thinking through plans for the next day, drinking coffee); some trigger a paradoxical fueling of thoughts (e.g., tell myself to stop worrying, try to stop thinking about my problems, tell myself I must go to sleep now);
- feelings of daytime sleepiness (e.g., taking the day easy, canceling all appointments);
- the day being unpleasant or boring (e.g., avoiding other people, slowing down the pace of the day, reducing self-expectations);
- preoccupation with sleep (e.g., making plans based on how much sleep is obtained, keeping a calculation of the sleep obtained, formulating plans for catching up on sleep).

STEP BY STEP DESCRIPTION OF PROCEDURES (SEE CHAPTER 7 FOR THE STEPS INVOLVED IN DEVISING EACH EXPERIMENT)

Measures have been developed to assist in assessing for the use of safety behaviors in insomnia and monitoring for sleep-related threats. The former is known as the Sleep-Related Behaviors Questionnaire (SRBQ) [5]; the latter is known as the Sleep Associated Monitoring Index (SAMI) [6]. Below we describe some of the most common experiments we have used to reduce the use of safety behaviors and monitoring.

Example 1: Symptom Monitoring (If You Look for Trouble, You Find Trouble)

1. *Precisely identify the belief/thought/process/behavior the experiment will target.*

Many patients with insomnia focus a great deal of their attention during the day on monitoring their mood, energy, and performance as a way of gauging their tiredness, whether they got enough sleep the night before, and whether they are coping. This internal focus typically amplifies feelings of tiredness, and contributes to concern about and preoccupation with sleep.

It can be helpful to design an experiment that targets thoughts like: “monitoring helps me to keep a check on how I am doing and helps me

to adjust my daytime activities accordingly”, and “monitoring my tiredness is automatic and I can’t control it”.

2. *Collaborate with your patient to brainstorm ideas for an experiment. Be as specific as you can.*

Work with your patient to identify when monitoring is occurring for them. For instance, some patients tend to be quite vigilant for noises or time passing when awake in the middle of the night, while others may be more likely to attend to their energy level in the middle of the day. By pinpointing the specific difficulties with monitoring pertaining to your patient, you will be better able to target their beliefs through the experiment. Discuss specific ways to monitor and not to monitor for sleep-related symptoms, and practice both within the session.

Taking the daytime as an example, it is often helpful to discuss monitoring versus not monitoring as putting attention outward versus inward. When attention is focused out, patients are not monitoring because they are directing their attention to the external environment by concentrating on sights, sounds, and smells around them. In contrast, when patients are monitoring, they are focusing inward toward bodily sensations, cognitive processes, and mood. For the experiment, consider asking the patient to monitor sleep-related symptoms for 2 hours during the day and then spend the next 2 hours *not* monitoring the sleep-related symptoms. Then ask the patient to repeat this pattern three times over the week. At the end of each period, the patient records how much he or she managed to be sleep-focused (i.e., monitor) and not sleep focused (i.e., attend to the external environment), and rate mood, performance, and fatigue. A concentrated and effective version of this experiment can be done when the patient is exercising or taking a walk outside (concentrating on the sunshine and trees versus concentrating on sore muscles or achy feet). It’s really important that you clearly operationalize and practice monitoring and not monitoring in the session.

3. *Write down predictions about the outcome and devise a method to record the outcome.*

A common prediction is that “I won’t be able to stop monitoring throughout the day. A focus on my mood, energy, and performance throughout the day helps me feel in control because I can check out what’s happening. Focusing on external things will not make any difference.”

We ask the patient to keep a diary of his or her mood, energy, and performance three times a day throughout the experiment.

4. *Anticipate problems and brainstorm solutions.*
5. *Conduct the experiment.*
6. *Review the experiment and draw conclusions. Write down the conclusions.*

Patients will typically feel better when they do not monitor sleep-related symptoms. Monitoring actually makes us more likely to

notice natural (and harmless) changes in mood, energy, and performance, and makes us more likely to worry. Patients also learn that they can choose not to monitor (and instead to smell the flowers). Many patients report an uplifting mood and energy effect that comes from not monitoring.

Example 2: Clock-watching

1. *Precisely identify the belief/thought/process/behavior the experiment will target.*

Many patients with insomnia monitor the clock in order to see how long it takes to fall asleep and, if awake at night, how many hours of sleep remain. On waking, many patients also calculate the number of hours they slept. This clock-watching behavior typically serves to fuel anxiety, as the patient very rarely gets good news by checking the clock. As anxiety and frustration increase, patients are likely to have even greater difficulty sleeping.

2. *Collaborate with your patient to brainstorm ideas for an experiment. Be as specific as you can.*

Make sure that the rationale for the experiment is clear to the patient. Then ask the patient to act as usual for 2 nights (i.e., monitor the clock) and then, for the next 2 nights, put the clock under the bed before turning out the light.

3. *Write down predictions about the outcome and devise a method to record the outcome.*

Predictions made by patients include: “I won’t be able to resist the urge to look at the clock, it will be really hard. It’s a habit that I cannot break, I’ll still find some way to calculate my sleep (e.g., by what was on the TV in the next room before falling asleep). Calculating how much sleep I get reduces my anxiety by letting me be prepared. I will be too anxious to sleep if I can’t tell what time it is during the night.”

Add questions to the morning sleep diary to assess anxiety during the night and difficulty not looking at the clock (for the third and fourth nights).

4. *Anticipate problems and brainstorm solutions.*

These will differ from patient to patient. However, one common concern is worry about oversleeping. This can be easily addressed by having the patient set an alarm before putting the clock under the bed.

5. *Conduct the experiment.*

6. *Review the experiment and draw conclusions. Write down the conclusions.*

Watching the clock typically makes the patient worry more, which, in turn, interferes with getting to sleep. Removing the clock typically helps reduce anxiety about sleep. Dropping clock-monitoring helps

TABLE 10.1 A Behavioral Experiment for Clock-watching

Record Sheet for Behavioral Experiments

Aim	The experiment (i.e., what you plan to do)	What do you predict will happen?	What actually happened?	Outcome
To see if looking at the time is helpful or not.	3 nights without the watch/clock (put clock under the bed). 3 nights with the watch.	It might make me more stressed to know what time it is. It might be helpful not to see the time – less pressure on sleep.	I didn't worry as much about what the time was; therefore, less pressure to sleep.	I was able to not think about the time, and therefore leave that out of the equation. This meant one less stimulus to keep my brain active in my sleep. Whether I could maintain the strategy during a bad night is debatable.

people sleep more soundly. It may be helpful to encourage patients who have engaged in clock-monitoring for a long period of time to continue the experiment for a week or longer before drawing conclusions, with the rationale that it may be necessary to take a longer amount of time to break long-standing habits.

An example of a clock-monitoring experiment is included as Table 10.1.

Example 3: Napping during the day

- 1. *Precisely identify the belief/thought/process/behavior the experiment will target.*

Sometimes patients with insomnia learn to cope with their daytime tiredness by taking naps (e.g., in front of the television in the evening). The beliefs that are typically associated with napping are “I can’t cope without my naps; I must nap in order to catch up on lost sleep”.

- 2. *Collaborate with your patient to brainstorm ideas for an experiment. Be as specific as you can.*

In introducing the experiment, it is often helpful to discuss the effects napping has on the sleep homeostat (e.g., “By taking an afternoon nap,

you are relieving the pressure building for sleep, so when you try to go to sleep at night the decreased pressure for sleep might contribute to your difficulty falling asleep.”). Further, it may be useful to increase patients’ interest in trying the experiment by pointing out the time they will gain by not napping during the day. In the first week, we tend not to make any changes. In the second week, the patient attempts to abstain from dozing, regardless of the amount of sleep obtained on the previous night. Pleasant and engaging activities are scheduled for the times the patient would ordinarily doze. Unless a pleasant alternative is planned, patients will typically find it difficult to stop napping. Patients keep a diary to record the frequency of naps, their tiredness, and how well they felt they were coping.

3. *Write down predictions about the outcome and devise a method to record the outcome.*

A typical prediction would be: Dozing reduces tiredness because it helps me catch up on lost sleep. Not dozing will be associated with an increase in tiredness and poorer coping.

4. *Anticipate problems and brainstorm solutions.*

It is important to conduct this experiment over at least 2 weeks – a minimum of 1 week of napping and 1 week of not (or limited) napping. Looking at 1 day of not napping, for example, would not give the sleep cycle sufficient time to adjust to the new routine.

In the short term, this experiment can result in patients feeling more tired. It is important to warn them of this potential short-term effect and encourage them to continue with the experiment. In these instances, it is particularly important to spend time problem-solving given the specific life circumstances of the patient. Think carefully with them about the sorts of activities they might engage in as an alternative to napping. Conceptualizing this time as an “active rest” may help them to maintain dedication to the experiment as they conceptualize the time when they used to nap as a time to revitalize themselves by doing something else.

For older adults, a nap of less than 1 hour, before 3 pm, may help overcome the natural tendency, with ageing, to sleep less at night [7].

5. *Conduct the experiment.*
6. *Review the experiment and draw conclusions. Write down the conclusions.*

During this experiment, patients typically learn that if they do not nap during the day they will be able to cope, and improve their night-time sleep. An added benefit is that patients typically end up with more time in the week and thus feel less stressed and more able to cope. The additional time also often presents an opportunity for patients to engage in rewarding and interesting activities for which they might otherwise not have made time during the day.

Example 4: Drinking coffee

1. *Precisely identify the belief/thought/process/behavior the experiment will target.*

Do this experiment (or a variant of it) if your patient believes that drinking lots of coffee is the only way he or she can get through the day.

2. *Collaborate with your patient to brainstorm ideas for an experiment. Be as specific as you can.*

It is helpful to begin with a discussion of how caffeine affects sleep, and the manner in which constantly drinking coffee could contribute to insomnia. Peak your patient's interest in generating other strategies to cope during the day. A good set-up for this experiment is to contrast several days of regular coffee-drinking with several days when the patient limits coffee to two medium-strength cups before 4 pm and then tries other energy-increasing strategies after 4 pm (see Example 1 in Chapter 7 regarding unhelpful beliefs).

3. *Write down predictions about the outcome and devise a method to record the outcome.*

Typical predictions might include: "I won't be able to function without coffee; caffeine is the only thing that will help me have enough energy to make it through the day; it will be too hard/not worth the trouble to stop drinking coffee in the afternoon."

In addition to collecting the sleep data that are always recorded by the patient in their sleep diary, it is helpful for patients also to rate their energy level during the days when they drink coffee as usual and the days when they switch to other energy-generating behaviors at 4 pm.

4. *Anticipate problems and brainstorm solutions.*
5. *Conduct the experiment.*
6. *Review the experiment and draw conclusions. Write down the conclusions.*

Other strategies are typically as effective as coffee at increasing energy. Furthermore, the patient will typically feel sleepier at bedtime, and may also take less time to fall asleep at night.

Example 5: Drinking alcohol to sleep

1. *Precisely identify the belief/thought/process/behavior the experiment will target.*

Do this experiment (or a variant of it) if your patient believes that drinking alcohol helps him or her to sleep.

2. *Collaborate with your patient to brainstorm ideas for an experiment. Be as specific as you can.*

It is helpful to begin with a discussion of how alcohol impacts sleep and sleep architecture. Psychoeducation about the effects of alcohol and the manner in which it has been empirically shown to disrupt sleep may be an

effective way to introduce the experiment. A good set-up for this experiment is to contrast several days when the patient does nothing to change his or her drinking habits with several days of no more than two standard drinks per day and no drinking within (at least) an hour of bedtime.

3. *Write down predictions about the outcome and devise a method to record the outcome.*

Typical predictions might include: “I won’t be able to fall asleep without a nightcap; this habit will be too difficult to break.”

In addition to collecting the sleep data that are always recorded by patients in their sleep diary, it is helpful for patients to also rate their mood before bed, and their anxiety about not drinking.

4. *Anticipate problems and brainstorm solutions.*

Warn patients that it may take a few nights for their sleep to readjust to not drinking alcohol before sleep.

5. *Conduct the experiment.*

6. *Review the experiment and draw conclusions. Write down the conclusions.*

Typically, patients find that alcohol is more disruptive to their sleep over the course of the night than is not drinking. Thus, conclusions often include something like: “When I didn’t drink alcohol to help me get to sleep, it took slightly longer to fall asleep at the beginning of the night, but I woke in the middle of the night less frequently. Perhaps alcohol helps me get to sleep, but it worsens my sleep quality and means I wake up early. No need to rely on alcohol to sleep.”

POSSIBLE MODIFICATIONS/VARIANTS

While a stock of behavioral experiments useful for patients with insomnia is beginning to accrue (see, for example, Ree and Harvey [5]), behavioral experiments should be personalized for each patient. As such, there is an infinite range of possibilities, particularly because there is an infinite range of safety behaviors that patients can use.

PROOF OF CONCEPT/SUPPORTING DATA/EVIDENCE BASE

For information about the use of behavioral experiments to treatment insomnia, see Chapter 7. There is research showing that patients with insomnia use more sleep-related safety behaviors [5] and engage in more sleep-related monitoring [6] than normal sleepers, and there is evidence that clock-monitoring increases anxiety about sleep and contributes to sleeplessness [8]. However, there have been no specific evaluations of the use of the behavioral experiments described above.

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RECOMMENDED READING

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