

# Mindfulness-Based Therapy for Insomnia

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## PROTOCOL NAME

Mindfulness-Based Therapy for Insomnia (MBTI): applying the principles of acceptance and letting go.

## GROSS INDICATION

MBTI may be particularly useful in treating the distress and emotional reactivity associated with chronic insomnia.

## SPECIFIC INDICATION

MBTI is indicated for primary insomnia and for psychophysiological insomnia.

## CONTRAINDICATIONS

There are no specific contraindications for this technique. However, there are contraindications for the MBTI program. Individuals with a current psychiatric diagnosis of major depressive disorder, bipolar disorder, psychotic disorder, post-traumatic stress disorder, and substance abuse or dependence are not appropriate candidates for MBTI because these conditions are likely to interfere with the practice of meditation or participation in the group, or the underlying psychiatric condition could be exacerbated by engaging in meditation.

## RATIONALE FOR INTERVENTION

A disorder of insomnia is defined by the presence of disturbed sleep and associated distress or impairment of function [1,2]. Current pharmacological and psychological treatments for insomnia are generally aimed at improving sleep, with relatively little direct attention given to the waking symptoms associated

with poor sleep. MBTI is a group program that integrates mindfulness principles with behavior therapy for insomnia using experiential and didactic techniques. It is designed to treat the full range of nocturnal and daytime insomnia symptoms by integrating empirically supported behavioral treatments of insomnia (stimulus control, sleep restriction, sleep hygiene) that target sleep disturbance with mindfulness-based techniques that target the emotional distress that is characteristic of the waking symptoms. The mindfulness principles are cultivated through meditation practices and mindfulness exercises, based on the Mindfulness-Based Stress Reduction Program (MBSR) [3,4] and the Mindfulness-Based Cognitive Therapy (MBCT) for depression program [5]. The behavioral components of MBTI include stimulus control [6], sleep restriction [7], and sleep hygiene [8], delivered within a mindfulness-based framework. The overall goal of the MBTI program is to reduce unwanted wakefulness at night and manage negative emotional reactions to disturbed sleep. The MBTI program is delivered in groups of six to eight participants and consists of eight weekly 2-hour sessions plus one all-day retreat.

The step-by-step procedures below demonstrate how two specific mindfulness principles, acceptance and letting go, can be utilized to help patients work with negative emotional reactions in response to disturbed sleep. These principles, which are practiced during formal meditations, help guide the individual to recognize his or her attachment to rigid beliefs and expectations about sleep and daytime functioning, and then develop a flexible approach to the process of sleep. Adopting an accepting stance is hypothesized to reduce sleep-related arousal and distress.

## STEP BY STEP DESCRIPTION OF PROCEDURES

In the MBTI program, each session begins with a period of formal mindfulness meditation, followed by a period of didactics and group dialogue, which is used to teach the principles of mindfulness (see Table 14.1), discuss the meditation practice, and explain the connection between mindfulness and insomnia. A patient-centered approach is used, allowing group participants to discover thoughts and feelings that arise during the implementation of the behavioral components (e.g., stimulus control) and the meditation practice. A point of emphasis in MBTI is using the principles of acceptance and letting go to work with negative emotional reactions to disturbed sleep. Below are sample dialogues demonstrating how these two principles are discussed and applied to sleep disturbance in the MBTI program.

There are three key points to emphasize in these discussions:

1. Not getting ideal sleep does not have to be a burden or another task on the list of things to fix.
2. Acceptance and letting go are not passive; rather, they involve actively choosing to take a non-reactive stance.

**TABLE 14.1** Applying Mindfulness Principles to Sleep

In the spirit of cultivating mindfulness, this program will help guide your personal inquiry into your own sleep needs and the optimal state of mind for initiation of sleep (at the beginning or middle of the night). In doing so, bring attention to changing your *relationship* to sleep rather than to the amount of sleep you get each night. As you begin to change this relationship, you might notice an improvement in the quality of your sleep. Later, you will likely see an increase in the amount of sleep you get. This approach requires discipline and consistency but follows the principles of mindfulness discussed in this program.

**Beginner's Mind:** Remember that each night is a new night. Be open and try something different! What you have been doing to this point is probably not working well.

**Non-striving:** Sleep is a process that cannot be forced, but instead should be allowed to unfold. Putting more effort into sleeping longer or better is counterproductive.

**Letting go:** Attachment to sleep or your ideal sleep needs usually leads to worry about the consequences of sleeplessness. This is counterproductive and inconsistent with the natural process of letting go of the day to allow sleep to come.

**Non-judging:** It is easy to automatically judge the state of being awake as negative and aversive, especially if you do not sleep well for several nights. However, this negative energy can interfere with the process of sleep. One's relationship to sleep can be a fruitful subject of meditation.

**Acceptance:** Recognizing and accepting your current state is an important first step in choosing how to respond. If you can accept that you are not in a state of sleepiness and sleep is not likely to come soon, why not get out of bed? Many people who have trouble sleeping avoid getting out of bed. Unfortunately, spending long periods of time awake in bed might condition you to being awake in bed.

**Trust:** Trust your sleep system and let it work for you! Trust that your mind and body can self regulate and self correct for sleep loss. Knowing that short consolidated sleep often feels more satisfying than longer fragmented sleep can help you develop trust in your sleep system. Also, sleep debt can promote good sleep as long as it is not associated with increased effort to sleep.

**Patience:** Be patient! It is unlikely that both the quality and quantity of your sleep will be optimal right away.

These are just some ways that the mindfulness principles are related to sleep. You might discover other connections between these principles and the process of going to sleep or falling back asleep. We encourage you to explore this for yourself and share your experience throughout this program.

3. The principles of mindfulness, along with the meditation practice, promote a more flexible way to look at sleep and work with sleep disturbance.

## Letting Go

**Therapist:** Many people have expectations about how much sleep they need. However, when we become attached to the idea that we need to be asleep at a specific time or that we need a

certain amount of sleep every night, we can become inflexible and anxious about how we sleep. This is counterproductive, and can maintain the cycle of insomnia.

**Patient:** I have been practicing my meditation and sometimes it helps me to relax, but what should I do when meditation does not help me sleep better at night?

**Therapist:** Mindfulness meditation is not another form of relaxation. It is the practice of paying attention without engaging. When you find yourself awake at night, allow yourself to let go of the notion that you need to do something about it. Remember that sleep naturally unfolds when we allow ourselves to let go of conscious activities, including deliberate efforts to make it happen. We have been practicing letting go in the formal meditations throughout the program. For example, during the body scan meditation we bring attention to each area of the body and then let go of that area, shifting our attention to the next body area. We allow our attention to move to another area without judging or becoming engaged in problem-solving of how to relieve tension in the previous area. Another example is how we have been paying attention to the breath. With each exhalation, we let go of that breath and move to the next.

**Patient:** I have tried to push away my thoughts at night and clear my mind, but they keep coming back. Letting go doesn't seem to be working for me.

**Therapist:** Remember, letting go is different than clearing your mind or forcing thoughts to go away. How many of you have tried pushing your thoughts away, only to find that the thoughts keep coming back? Instead, letting go is a way to allow thoughts to be as they are and to allow them to run their course. You might find that if you let these thoughts come in and out of your conscious awareness without getting engaged in them, they will eventually subside. It's a very different and counterintuitive way to approach thoughts that you wished you did not have!

## Acceptance

**Therapist:** Accepting that sleep may not happen exactly when we want or for as long as we would like is another key to breaking the cycle of insomnia. It might seem reasonable to expect that we will meet our ideal sleep needs each night. Yet in modern society we often fall short of this ideal. As you have likely noticed, our brain is quite a resilient organ and

it works even under less than optimal conditions, including when we have been sleeping very little. Accepting that sleep cannot be forced means that it is futile to put much mental effort into sleeping. Instead, when we cannot sleep at a given moment at night we can view it as a sign that our minds or bodies are not yet ready for sleep at this moment. Accepting that struggling with sleep is counterproductive means we might just as well get out of bed. Has anyone found that continuing to struggle with sleep makes the time you spend awake in bed rather unpleasant? Have you considered the possibility that this struggle and frustration could make it even more difficult to sleep?

**Patient:** But how can acceptance of a problem be helpful?

**Therapist:** By cultivating acceptance, we can step out of our automatic reactions and increase the range of responses to the problem. For example, acceptance is helpful for people who experience chronic anxiety and worry. Researchers have found that non-acceptance, putting things off, and avoidance of the problem tends to “fuel” anxiety rather than relieve it. It seems that worry serves the purpose of “giving the mind something to do” so it does not have to face the real problem. A worried response to a stressful challenge tends to make people more rigid in their reactions to stress. In fact, one of the most effective strategies for helping people with phobias and serious anxiety issues is exposure to the feared stimulus. For example, an individual with a phobia of bridges can benefit from gradual exposure to being on a bridge (e.g., starting with a picture of bridge, then going on a small bridge, then on a larger bridge), whereas avoiding bridges generally reinforces the anxious response. Perhaps when you accept that you may or may not fall asleep easily on a given night, you will be approaching bedtime with less apprehension. As your apprehension about sleep creates tension that is likely to interfere with sleep, decreasing this apprehension will likely result in shorter time to fall asleep. Has anyone ever thought about what people with insomnia avoid? People with insomnia usually try very hard to avoid sleep deprivation or being in a state of fatigue. However, trying to avoid this by going to bed is not likely to help you sleep better. You might learn that you do not have to be afraid of sleep deprivation, and that acceptance of a little bit of sleep deprivation can even help you sleep better!

**Patient:** But isn't acceptance or letting go kind of like giving up hope or being passive?

**Therapist:** It is actually quite the opposite! Rather than giving up, you are making a conscious decision to accept or embrace what is happening. You are choosing to actively respond by allowing or letting the feeling or experience be, rather than automatically avoiding, fixing, or changing the unpleasant feeling or experience. By doing so, you might even find that the experience changes – that the negative emotions really were not as bad as you thought. Or, you might find that an alternative solution is possible when previously you thought there was no way out. The key point is that it is not always helpful to try to fix or solve things. Acceptance provides another way to relate to the problem. It often leads to a deeper understanding of the problem and allows creative solutions to emerge.

**Patient:** So just accepting that I am not getting the sleep I need right now is going to help me sleep better in the future?

**Therapist:** Remember, letting go and acceptance are only two of the principles of mindfulness. Other principles, such as non-judging and beginner’s mind, are also important. See what happens if you are able to accept that sleep at this moment is not happening without judging what might happen to you tomorrow or the next night. Perhaps you will still be able to function the following day. See if you are able to approach each night with a beginner’s mind (i.e., “this is a new night and it doesn’t matter what happened the night before and it won’t help to worry about what I have to do tomorrow”). Over time, this shift in attitude might give your brain and body a chance to self-regulate. Rather than using acceptance and letting go as techniques intended to help you sleep better, why not pay attention to what is going on for you at this moment and see what your mind and body are telling you?

## Overall Discussion

Following a discussion of these two principles, it is helpful to reinforce how taking a mindfulness approach allows us to examine whether or not we always have to move away from negative experience. The therapist might discuss any observations from patients about acceptance or the ability to let go. Questions that might be raised for discussion include:

1. Is being awake when we don’t want to always a bad thing?
2. Are there ways to be more flexible in responding to wakefulness?
3. In what other situations might it be helpful to use acceptance and letting go?
4. Can you practice these principles in your own meditation practice?

## POSSIBLE MODIFICATIONS/VARIANTS

In addition to the principles of acceptance and letting go, other principles of mindfulness (see Table 14.1) can be used to work with the emotional reactivity that arises during the course of chronic insomnia. For example, the principle of beginner's mind can be used to teach participants how to approach each night as an independent event, avoiding the temptation of making changes to their sleep-related behavior based upon contingencies from the day or previous night (such as, "Last night was bad so I need to make sure I am going to get more sleep tonight"). More broadly, meditations can be used to bring awareness to the mental and physical sensations that differentiate sleepiness and fatigue. Upon learning how to identify the sensations associated with the state of sleepiness, participants can be instructed on how to use sleepiness as a guide for when to go to bed when following instructions for stimulus control or sleep restriction.

## PROOF OF CONCEPT/SUPPORTING DATA/EVIDENCE BASE

There is general support for the efficacy of mindfulness-based programs as applied to psychiatric illness and coping with chronic medical illness. The MBSR program has been used in the treatment of a variety of disorders, including chronic pain, generalized anxiety disorder, fibromyalgia, psoriasis, cancer, and depression. Significant reductions in self-reported cognitive and somatic anxiety have been found following MBSR, with one study [9] reporting a medium effect size ( $d = 0.50$ ) for pre- to post-treatment effects on mental health variables (e.g., anxiety, depression severity). In a randomized controlled trial, the MBCT program significantly reduced the risk of relapse/recurrence for patients with three or more previous episodes compared to treatment-as-usual over a 60-week period [10].

Given the effects of MBSR on anxiety and mood-regulation and the potential long-term benefits for preventing relapse as seen in MBCT, a mindfulness-based approach may be successfully applied to the management of chronic insomnia. The principles of mindfulness are theoretically congruent with the Spielman model of chronic insomnia [11], and appear to complement the behavioral therapies for insomnia. Also, the patient-centered approach and use of meditations as experiential learning tools might be more appealing to patients than the didactic approaches used in other behavioral interventions for insomnia.

To date, only a limited number of studies have been conducted on using mindfulness meditation for patients with insomnia. Preliminary work on an early version of MBTI has yielded promising results supporting the use of this intervention for primary insomnia. An open-label pilot study [12] evaluated a 6-week version of the MBTI program on a sample of 30 participants with psychophysiological insomnia. The intervention was found to be feasible to deliver and credible to insomnia patients. Significant pre- to post-treatment

effects with moderate to large effect sizes were found on several nocturnal symptoms, including decreased total wake time ( $d = -1.17$ ), fewer awakenings ( $d = -0.61$ ), higher sleep efficiency ( $d = 1.13$ ), and lower scores on the Insomnia Severity Index ( $d = -1.32$ ). Half of the participants experienced a 50 percent or greater reduction in total wake time (TWT), and all but two participants scored below the cut-off for clinically significant insomnia on the ISI. In addition, the program resulted in significant reductions in pre-sleep arousal ( $d = -1.00$ ), sleep effort ( $d = -0.96$ ), and dysfunctional sleep-related cognitions ( $d = -1.05$ ). Follow-up data revealed that the acute treatment gains achieved at the end of treatment were maintained at 6 and 12 months post-treatment, and 61 percent of participants had no relapse of insomnia during the 12 months following treatment [13].

Although these studies were not able to specify the efficacy of the mindfulness meditation component, preliminary data suggest a relationship between mindfulness meditation and insomnia symptoms. A significant negative correlation was found between total number of meditation sessions during the MBTI program and change in trait hyperarousal, suggesting that more meditation practice is related to greater decrease in arousal [12]. Also, a significant negative correlation was found between scores on a measure of mindfulness skills and daytime sleepiness, raising the possibility that mindfulness skills might improve daytime functioning [13]. Studies have also examined the impact of MBSR on sleep in cancer patients. Carlson and colleagues [14] reported pre- to post-treatment improvements in sleep quality and total sleep time in a sample of cancer patients. Shapiro and colleagues [15] investigated the impact of MBSR on sleep among women with breast cancer and found no differences between the MBSR and the control group on sleep quality and sleep efficiency, but did report a positive relationship between the practice of mindfulness and feeling refreshed after sleep.

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## RECOMMENDED READING

- J. Kabat-Zinn, *Full Catastrophe Living: Using the Wisdom of your Body and Mind to Face Stress, Pain, and Illness*, Delacorte Press, New York, NY, 1990.
- J.C. Ong, S.L. Shapiro, R. Manber, Combining mindfulness meditation with cognitive-behavior therapy for insomnia: a treatment-development study, *Behav. Ther.* 39 (2) (2008) 171–182.
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