Insomnia: A Primary Care Perspective

Larry Culpepper, M.D., M.P.H.

Primary care physicians once considered insomnia a nuisance diagnosis with which they had little concern. A complaint of insomnia is often brought to a physician's attention as a last-minute secondary complaint, which may be dismissed as unimportant by the physician. However, chronic insomnia is prevalent, associated with a decrease in quality of life, and can be an exacerbating factor in other psychiatric and medical conditions. Primary care physicians therefore should be aware of the signs of insomnia and include the detection of it in the evaluation of patients who present with other complaints or as part of annual physical examinations. Physicians can assess insomnia with tools they already use, such as a patient's initial history. If insomnia is detected, primary care physicians should work with patients to educate them. Management necessitates the inclusion of education and patient counseling about sleep hygiene and correction of dysfunctional beliefs and behaviors. It may also include pharmacologic treatment, nonpharmacologic treatment, or a combination of both.

(J Clin Psychiatry 2005;66[suppl 9]:14–17)

In order to effectively identify, assess, and treat patients with insomnia, primary care physicians should understand the prevalence of clinically significant insomnia, the potential causes of insomnia, and the effectiveness of available interventions. Understanding these issues can alert physicians to the signs of insomnia when treating patients. A thorough evaluation of the patient's condition can help pinpoint the source and severity of the problem. Physicians can then suggest a proper course of management to the patient, which may include education and counseling, pharmacologic or nonpharmacologic treatment, and long-term follow-up.[1]

IMPACT OF INSOMNIA

Primary care physicians once considered insomnia to be a nuisance diagnosis with which they had little concern. Despite this opinion, insomnia has proved to be a serious health problem. Not only is clinically significant insomnia present in 10% to 20% of patients,[2,3] but its prevalence is also higher in patients with chronic medical conditions.[4] Insomnia often is comorbid with major depression and anxiety disorders,[5] both of which are frequently treated in primary care. The management of concurrent medical and psychiatric disorders can be complicated by insomnia. Impairments associated with insomnia include impaired cognitive functioning,[6] decreased quality-of-life,[6] increased occurrence of bodily pain and poorer general health,[2,6,7] increased risk of developing psychiatric disorders,[8] decreased job performance and increased absenteeism,[6] increased risk of accidents,[9] and increased health care costs.[5,10] Yet, despite its prevalence and impact, insomnia is both underreported and undertreated in primary care (Figure 1).[11] Either patients do not report insomnia to physicians, or physicians do not take reports of insomnia seriously, thereby missing the opportunity to properly treat patients in need of intervention.[11] Physicians should recognize that insomnia can adversely affect a patient's health, whether as a separate problem or as a symptom or adverse effect of another illness.

RECOGNIZING INSOMNIA

One opportunity to evaluate patients for insomnia is during a patient's primary care visit for other problems. The insomnia complaint is often brought to the physician's attention as a last-minute secondary complaint, which may be dismissed as unimportant by the physician.[4,11,12] Another opportunity to look for symptoms of insomnia is during treatment for chronic medical conditions. Treating the symptoms of insomnia may aid in the patient's functional recovery and potentially improve his or her quality of life. A third opportunity for assessment is at the annual examination.

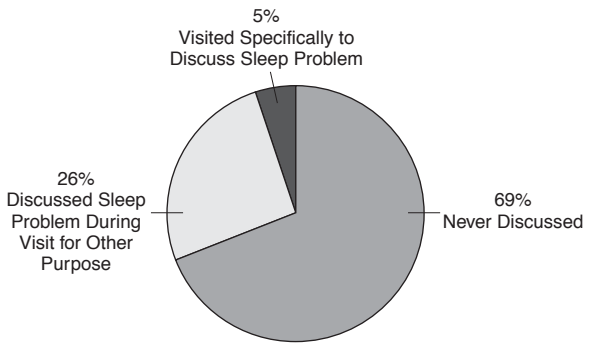
To make an accurate evaluation, primary care physicians need to develop skills for assessing insomnia. Physicians can simply use the elements of their normal routines to uncover additional information related to a patient's

From the Department of Family Medicine, Boston Medical Center, Boston, Mass.

This article is derived from the planning roundtable "Sleep: New Frontiers in Psychiatry and Primary Care," which was held March 18, 2005, in Chicago, Ill., and supported by an unrestricted educational grant from Takeda Pharmaceuticals North America, Inc.

Corresponding author and reprints: Larry Culpepper, M.D., M.P.H., Chairman of Family Medicine, Boston University School of Medicine: 1 Boston Medical Center Place, Dowling 5, Boston, MA 02118 (e-mail: larry.culpepper@bmc.org).

Figure 1. Percentage of People With Insomnia (N = 700) Who Discussed Any Sleep Problems With Their Physician or Other Health Care Professional[a]



[a]Reprinted with permission from Ancoli-Israel and Roth.[11]

insomnia[1] such as observing behavior, obtaining background and history, further defining the sleep problem, and detecting cues to other medical conditions that may be associated with insomnia.[12] The goal of the evaluation should be to identify whether insomnia is primary or secondary; identify the presence of contributory, ameliorating, or exacerbating factors; and identify other issues that may influence the course and treatment of insomnia.

Consider Behavioral Cues During In-Office Evaluation

The physician can begin evaluation of a patient for insomnia by being sensitive to noticeable cues in the patient's behavior, such as being fatigued.[13,14] Although a patient may not schedule a primary care visit for insomnia alone, he or she may exhibit behavioral signs of a problem while in the office and examination room. Apathy, impaired cognitive skills, moodiness, and disinhibition may be cues that the patient has sleep problems.[13] These behaviors alone may not definitively indicate primary insomnia, but they should be considered potential diagnostic indicators of primary insomnia or a medical condition.

History Cues Helpful in Assessing Insomnia

Whether patients come to the primary care office with a specific sleep complaint or physicians notice behaviors related to a sleep problem, a history of the patient should be taken that will aid in identifying the nature of insomnia.[1,12] The initial history can help the physician to determine the degree of insomnia and the treatment needed. The physician can start by asking questions to define the sleep problem.[1,12] For example, does the patient have difficulty initiating or maintaining sleep? Does the patient awaken early? Is sleep nonrestorative? Does insomnia happen every night, or is it intermittent? Has it occurred only recently, or is it long-standing? How has the patient dealt with prior episodes of insomnia? What does the patient perceive as the cause? Does the patient perceive a need for intervention? Clarifying the nature of the complaint can assist physicians in making an initial decision about the significance of the insomnia and the need to proceed further with evaluation.

Physicians should also ask about any medications and substances the patient may take that could influence the course of insomnia.[15–17] Physicians can be misled if they assume that their patients understand the relationship between drugs and insomnia and therefore omit inquiring about the substances their patients may be ingesting. In actuality, patients may be ignorant of the possible associations between insomnia-inducing agents and insomnia, especially agents such as alcohol, tobacco, and caffeine.

Defining the Sleep Problem

If a patient's behavioral cues or initial history suggests insomnia, the next step is to define the nature of the problem.[1] If the patient's sleeplessness is associated with inadequate opportunity to sleep due to his or her lifestyle, then the patient's sleep problem may actually be sleep deprivation.[18] The appropriate intervention would be to identify the causal situation (e.g., trying to work 2 jobs) and counsel the patient on improving sleep duration and hygiene. If a patient has adequate time for sleep and still has insomnia, then the physician needs to investigate potential precipitating events, such as whether the insomnia is due to a situation in the patient's life and whether it is chronic or acute.[1]

Personal beliefs and lifestyle factors such as level of exercise or pattern of caffeine, alcohol, or nicotine use may contribute to initiating or maintaining insomnia. Physicians should assess patients' perceptions about the cause of their insomnia and find out how patients have previously handled insomnia.[1] Patients may build up a repertoire of dysfunctional responses to the problem over time that perpetuates the insomnia.[1] A patient's home remedy, such as drinking alcohol or eating, may actually be a factor that perpetuates his or her insomnia. Other perpetuating factors of insomnia can include disruptive bedtime rituals, poor sleep hygiene, nocturnal awakening behaviors, and failure to understand associations between sleep and food, substances, and smoking.[1,19] In addition, a patient's faulty beliefs can be a factor in insomnia.[1,19] For example, a patient may consider insomnia to be something to tolerate and accept because it is in the patient's family history. Or a patient may develop anxious thoughts about the ability to sleep, such as negative expectations of getting sleep (e.g., the patient believes that sleep is completely unobtainable). Patients can also develop distortions about what is needed to fall asleep such as believing that 8 hours of sleep is absolutely required, that they must stay in bed even when they are not sleepy, and that medication is needed to fall asleep. Finally, patients can develop catastrophic thoughts about the consequences of not getting enough sleep. For example, thinking that their life will completely fall apart or that they will be unable to function without sleep can

cause anxiety, which then prevents them from actually getting to sleep.

Insomnia as a Cue to Other Conditions

An evaluation of the patient's initial history may allow physicians to differentiate between primary insomnia and sleeplessness caused by another disorder.[1] Sleeplessness alone might not be primary insomnia, but rather an adverse effect of psychiatric disorders, like anxiety and depression; medical conditions, like congestive heart failure or emphysema; or medications. Insomnia also may be due to specific sleep disorders that have distinct symptom patterns and require specific interventions.

Associated nocturnal events. Associated nocturnal events like nightmares, panic, terror, headache, pain, respiratory difficulties, reflux, night sweats, hot flashes, parasomnia behaviors, sleep paralysis, and hallucinations could indicate a psychological or medical condition.[1] Anxiety is often associated with hyperarousal and delayed sleep onset. Nightmares may indicate posttraumatic stress disorder, and medical conditions like congestive heart failure or emphysema might cause shortness of breath several hours after retiring.

Circadian rhythm sleep disorders. Circadian rhythm sleep disorders, like delayed sleep phase syndrome and advanced sleep phase syndrome, are some of the easiest to identify and may be associated with both sleepiness and sleeplessness.[20–22] Patient complaints indicating delayed sleep phase syndrome, which is common in adolescents, may include evening insomnia, morning sleepiness, and normal sleep but at a late or delayed hour. The symptoms of advanced sleep phase syndrome, which is more common in older adults, include evening sleepiness, morning insomnia, and normal sleep at an early or advanced hour. A persistent pattern of sleep problems is characteristic of both conditions.

Physiologic associations with insomnia. Patient complaints of headaches, unrefreshing sleep, daytime sleepiness, snoring, and weight gain can be cues of a specific sleep disorder such as obstructive sleep apnea.[23] These symptoms require assessment through further history, physical examination, and, at times, sleep studies. Physiologic factors assessable upon examination (such as craniofacial abnormalities, crowded oropharynx, large neck circumference, and air flow limitation in the chest and lungs) are often associated with insomnia.[12]

While diagnostic tests like polysomnography often are needed to diagnose sleep problems related to physiology, physicians should be aware of predisposing factors that indicate the need for testing. For example, obstructive sleep apnea occurs primarily in middle- to older-age obese men and with the use of central nervous system (CNS) suppressants.

Restless legs syndrome. Sleeplessness also may be related to restless legs syndrome, which causes "creepy" or "crawly" sensations in the legs that are relieved by movement. Primary restless legs syndrome is generally idiopathic, although it can be secondary to uremia, anemia, and pregnancy. It often coexists with periodic limb movements during sleep.[24,25]

TREATMENT

After the evaluation of a patient's symptoms of insomnia, primary care physicians should be able to determine if the sleep problem is associated with primary insomnia or the sleeplessness is a symptom of another disorder. If the physician and patient agree that the sleep problem is substantial enough to need intervention, then plans to manage the problem can be considered.

Management necessitates the inclusion of education and patient counseling about sleep hygiene and correction of dysfunctional beliefs and behaviors in addition to nonpharmacologic, pharmacologic, or combination treatment. For a review of sleep hygiene education, cognitive-behavioral therapy, medications, and combination treatment for insomnia, see the article by Erman in this supplement.[26]

If a specific disorder is responsible for the sleep problem, then treatment needs to be directed at that disorder. However, treatment may not result in a complete cure of the insomnia, so physicians should be prepared for long-term follow-up of these patients. As the primary disorder is controlled, a reevaluation of any residual insomnia is needed to check if specific treatment for it should be pursued. If sleep problems cause the patient to be severely dysfunctional, the physician might need to consider a consultation with a sleep specialist. Specific cues indicating that a consultation with a specialist may be required include patient complaints of impaired daytime function, snoring that wakes them up, falling asleep while driving, and failing to respond to treatment. In addition, consultation is appropriate any time the physician is uncertain of the diagnosis or best treatment.

CONCLUSION

Primary care physicians should develop a better understanding of how to identify and treat insomnia because it is a common and disabling complaint. The best way to recognize the signs of insomnia is for physicians to hone the skills they already have. Opportunities to recognize any possible cues to insomnia can be found in a patient's initial history and behavior. Once insomnia is recognized, then physicians can work with patients to arrive at the best possible management.

Disclosure of off-label usage: The author has determined that, to the best of his knowledge, no investigational information about pharmaceutical agents that is outside U.S. Food and Drug Administration–approved labeling has been presented in this article.

REFERENCES

1. Sateia MJ, Nowell PD. Insomnia. Lancet 2004;364:1959–1973
2. Mellinger GD, Balter MB, Uhlenhuth EH. Insomnia and its treatment: prevalence and correlates. Arch Gen Psychiatry 1985;42:225–232
3. National Sleep Foundation. Summary of findings: 2005 Sleep in America Poll. Washington, DC: National Sleep Foundation; 2005. Available at: http://www.sleepfoundation.org/_content/hottopics/2005_summary_of_findings.pdf. Accessed July 05, 2005
4. Katz DA, McHorney CA. Clinical correlates of insomnia in patients with chronic illness. Arch Intern Med 1998;158:1099–1107
5. Ford DE, Kamerow DB. Epidemiologic study of sleep disturbances and psychiatric disorders: an opportunity for prevention? JAMA 1989;262:1479–1484
6. Zammit GK, Weiner J, Damato N, et al. Quality of life in people with insomnia. Sleep 1999;22(suppl 2):S379–S385
7. Bixler EO, Kales A, Soldatos CR, et al. Prevalence of sleep disorders in the Los Angeles metropolitan area. Am J Psychiatry 2003;136: 1257–1262
8. Breslau N, Roth T, Rosenthal L, et al. Sleep disturbance and psychiatric disorders: a longitudinal epidemiological study of young adults. Biol Psychiatry 1996;39:411–418
9. Balter MB, Uhlenhuth EH. New epidemiologic findings about insomnia and its treatment. J Clin Psychiatry 1992;53(12, suppl):34–39
10. Simon GE, VonKorff M. Prevalence, burden, and treatment of insomnia in primary care. Am J Psychiatry 1997;154:1417–1423
11. Ancoli-Israel S, Roth T. Characteristics of insomnia in the United States: results of the 1991 National Sleep Foundation Survey. Sleep 1999;22 (suppl 2):S347–S353
12. Kushida CA. Introductory clinical overview in sleep disorders. Primary Psychiatry 1999;6:47–51
13. Dinges DF, Kribbs NB. Performing while sleepy: effects of experimentally induced sleepiness. In: Monk TH, ed. Sleep, Sleepiness, and Performance. Chichester, England: John Wiley & Sons; 1991:97–128
14. Rosekind MR, Gander PH, Gregory KB, et al. Managing fatigue in operational settings, pt 1: physiological considerations and countermeasures. Behav Med 1996;21:157–165
15. Ashton H. Guidelines for the rational use of benzodiazepines: when and what to use. Drugs 1994;48:24–40
16. Becker PM, Jamieson AO, Brown WD. Insomnia: use of a decision tree to assess and treat. Postgrad Med 1993;93:66–70,73–76
17. Erman MK. Insomnia. Psychiatr Clin North Am 1987;40:525–539
18. National Heart, Lung, and Blood Institute. National Center on Sleep Disorders Research and Office of Prevention, Education, and Control: Working group report on problem sleepiness. 1997. Available at http://www.nhlbi.nih.gov/health/prof/sleep/pslp_wg.pdf. Accessed June 27, 2005
19. Spielman AJ, Caruso LS, Glovinsky PB. A behavioral perspective on insomnia treatment. Psychiatr Clin North Am 1987;10:541–553
20. Wyatt JK. Delayed sleep phase syndrome: pathophysiology and treatment options. Sleep 2004;27:1195–1203
21. Reid KJ, Zee PC. Circadian rhythm disorders. Semin Neurol 2004;24:315–325
22. Doghramji K. Assessment of excessive sleepiness and insomnia as they relate to circadian rhythm sleep disorders. J Clin Psychiatry 2004;65 (suppl 16):17–22
23. Guilleminault C, Robinson A. Central sleep apnea. Otolaryngol Clin North Am 1998;31:1049–1065
24. Zucconi M, Ferini-Strambi L. Epidemiology and clinical findings of restless legs syndrome. Sleep Med 2004;5:293–299
25. Hening W, Walters AS, Allen RP, et al. Impact, diagnosis and treatment of restless legs syndrome (RLS) in a primary care population: the REST (RLS epidemiology, symptoms, and treatment) primary care study. Sleep Med 2004;5:237–246
26. Erman MK. Therapeutic options in the treatment of insomnia. J Clin Psychiatry 2005;66(suppl 9):18–23