Difficulty Falling or Staying Asleep

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KEYWORDS

• Sleep maintenance • Excessive daytime somnolence • Sleep history • Insomnia
• Circadian rhythm disorders • Sleep-related breathing disorders • Actigraphy • Sleep testing

KEY POINTS

- Sleep complaints should be viewed as a symptom, not the problem, and a differential diagnosis list should be compiled based on the subtle features of these complaints.
- Screening tools and assessments are helpful in identifying and characterizing sleep complaints before or during the clinical encounter.
- An organized, systematic approach is preferred when evaluating patients' sleep complaints.
- Gathering specific core data points of the sleep history is crucial to accurately appreciate the nuances of patients' complaints and help to focus the differential diagnosis list.
- A firm understanding of the potential causes or exacerbating factors of the complaint is necessary to accurately guide the evaluation process.
- Several tools are available to help further characterize or diagnose conditions that may be responsible for patients' complaints.

INTRODUCTION

Sleep disorders are extremely common in the general population, and even more so when considering specific subpopulations. An estimated 50 million to 70 million US adults have sleep disorders.[1] Studies have shown that between 20% and 35% of adults report having 1 or more symptoms of insomnia and 10% to 20% have clinically significant insomnia syndrome.[2–6] Further, as many as 40% of patients more than the age of 60 years may experience insomnia, frequent nighttime awakenings, and disrupted sleep.[7] Extrapolated data from the Wisconsin Sleep Cohort Study estimated that the overall prevalence of obstructive sleep apnea was 9% for women and 24% for men.[8]

There are far-reaching consequences of untreated sleep disorders. Quality-of-life studies have shown the impact of sleep disorders on productivity, cognitive function, and work absenteeism.[9,10] Insomnia specifically has been shown to contribute to worsening psychiatric and health outcomes,[11,12] as well as having profound economic costs, with estimated total direct and indirect costs of $30 billion to $35 billion annually.[13] A recent investigation into the financial burden of the effects of insomnia provided estimates using data from 7428 US workers. Researchers reported that the annual loss in work performance is 367 million days, translating into a loss of US$ 91.7 billion.[14] Untreated obstructive sleep apnea has been linked to poor cardiovascular and metabolic disease outcomes.[15] A study in 2000 suggested that more than 800,000 drivers were involved in a motor vehicle accident as a consequence of sleep apnea. Those events cost 1400 lives and $15.8 billion.[16]

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The realization of the consequences to health coupled with the prevalence of these problems in Western society suggests that there should be a formal, structured sleep medicine curriculum embedded into the fabric of medical education. This curriculum would in turn produce physicians who are adequately prepared in the evaluation and treatment of sleep disorders on completion of their training. However, this has not been found to be the case.

According to a 2002 survey of more than 500 primary care physicians (PCPs) who self-reported their knowledge of sleep disorders, none reported their knowledge as excellent, 10% reported as having a good knowledge base, 60% reported a fair knowledge base, and 30% reported their knowledge as poor.[17] A survey in 1990 to 1991 of 37 American medical schools reported that sleep and sleep disorders were covered, on average, in less than 2 hours of total teaching time.[18] However, there is little to suggest that this trend has changed to any large extent. A 2007 review of medical specialty textbooks found that sleep and sleep disorders information made up approximately 2% of the content[19] and a study from 2011 found that only 3 hours of time were spent on sleep education as part of the core medical school curriculum.[20]

Insufficient training and knowledge of sleep disorders is likely a major contribution to underrecognition and undertreatment. A 2003 US poll found that 67% of adults more than 55 years of age reported having symptoms of sleep disorders at least a few nights a week, but only 13% had been formally diagnosed with a sleep condition, and only 9% had received treatment.[21] In the 2005 National Sleep Foundation's Sleep in America Poll, 70% of respondents reported that their doctors had never asked about their sleep habits.[22]

More structured, integrated education with regard to identification, evaluation, and management of sleep disorders during the process of medical training is therefore likely to increase awareness and vigilance about the identification of these conditions.

Patients with sleep disturbances should be approached using the same methodology taught to medical students to assess any chief complaint; that is, to identify the underlying condition responsible for the complaint, as opposed to reacting to and treating a symptom. If a sleep-related symptom is viewed as the problem, treatments directed toward the complaint will often be incomplete and fraught with complications and side effects. Although the complaints of difficulty falling asleep, waking frequently during the night, and difficulty reinitiating sleep are defining symptoms of insomnia, it is crucial to appreciate the multiple conditions that often share these as presenting symptoms. Symptom-directed treatment not only carries the risk of masking important and harmful conditions, but also often proves to be ineffective until such time that the underlying problem is addressed. As with any other complaint or problem, a thorough history and physical, followed by the generation of a complete differential diagnosis list, promotes a focused evaluation, and guides the treatment process in a safer, more precise, and more effective manner.

The common use of hypnotic sleep aids has gained recent attention after studies reported decreased levels of alertness while driving, prompting the US Food and Drug Administration to recommended lower doses of zolpidem for women.[23] The risks of prescription sleep aids have been well established.[24–27] A 2012 study that showed correlations between the ever use of benzodiazepines and a 50% increase in the risk of dementia mandates the judicious use of these medications.[28] Whether this relationship is causal does not negate the potential risk, and practitioners who are unable or unwilling to assess sleep complaints appropriately should think carefully before prescribing them.

However, to date, there has been little validation of a standardized, formally structured interview in a clinical setting for the evaluation of sleep complaints. Those studies that have been performed have not been reliably reproduced in large-scale, clinical settings.[29,30] Further, apart from sleep specialists, it is rare that clinicians have the time, resources, or training that are required to perform a comprehensive sleep evaluation for patients with these types of complaints. Nonetheless, having a better understanding and appreciation of the evaluation of sleep/wake complaints affords treating clinicians a broader knowledge of the appropriate management.

This article discusses these issues, describing in greater detail the barriers to care, approaches in identifying these patients, as well as an approach in the evaluation of patients complaining of difficulties initiating and maintaining sleep.

BARRIERS/ACCESS TO CARE

Insomnia is the most commonly reported sleep problem in the industrialized world but most insomniacs do not seek medical treatment. A 2005 study identified 3 main determinants to seeking care for sleep-related complaints: daytime fatigue (48%), psychological distress (40%), and physical discomfort (22%).[31] The high incidence of insomnia complaints paired with suboptimal recognition