

Assessment and Treatment of Insomnia

A review of the video

Sleep and Sleep Disorders

with Edward Stepanski and Jon Carlson (Moderator)

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It takes me forever to fall asleep... I keep looking at the clock and watch the hours go by 1:00 a.m., 2:30, 4:00, 5:00, 6:00... Then I have to get up and I'm exhausted. I just drag through the day. But at about 8:00 at night, I start to worry, "will I be able to sleep tonight or will it be another long frustrating night of counting the hours and worrying about being exhausted the next day." When I lay down, I'm stiff as a board, I hear everything—even myself breathing, my own heart, I feel the blankets and the sheets; they are like steel wool... It's going to be another bad one.



Sleep is in the news everywhere—the biology of sleep, the importance of sleep, good “sleep hygiene,” and what happens when we do not get enough sleep. Television news shows, children’s magazines, health and fitness magazines, even science magazines regularly feature sleep and sleep disorders (e.g., Gorman, 2004; Lavin, 2006). Perhaps part of the nation’s fascination with sleep is related to the fact that so many Americans struggle with it. Insomnia, for example, is an occasional problem for at least one third of the general population and a chronic difficulty for at least 10 percent of adults (Neubauer, 2005). Nearly 80 percent of teens are not getting enough sleep on a regular basis (National Sleep Foundation, 2006), and nearly 25 percent of Americans work rotating night shifts (Malik & Kaplan, 2005). One study examined prescription patterns in a large managed-care population and found that seven percent received one or more prescription medications for insomnia in an 18-month period (Roehrst & Roth, 2004). Many more Americans are self-medicating with herbal supplements, over-the-counter medications, and alcohol.



Sleep medicine is a rapidly growing field, and with increasing evidence for the efficacy of nonpharmacological interventions, behavioral sleep medicine is earning its place in the assessment and treatment of sleep disorders. When one examines the number of psychologists credentialed in behavioral sleep medicine, however, it is clear that behavioral interventions for sleep disorders are not widely available. The American Academy of Sleep Medicine lists fewer than 65 psychologists and psychiatrists certified in behavioral sleep medicine in the United States (American Academy of Sleep Medicine, n.d.). Although certification is not necessarily required to establish competence in this field, the absolute numbers of psychologists specializing in this area is clearly quite limited.



There is an enormous demand for psychologists wishing to specialize in behavioral sleep medicine. Whether as a consultant to a primary care physician or within a specialized sleep disorders center, psychologists have much to offer. Cognitive-behavioral therapy has been shown to be as effective for insomnia as pharmacotherapy, with approximately 70 percent to 80 percent of patients with chronic

insomnia benefiting from treatment and maintaining these gains over time (Morin et al., 1999). Many physicians and patients alike cringe at the thought of prescription medication for sleep problems. Walling (2003), for example, suggested that sleep disorders may be among a family physician's "heartsink conditions," referring to those conditions that never quite kill patients but bring them back relentlessly to the office seeking relief from their symptoms. In my (Jennifer Gafford) own practice as a behavioral consultant to a sleep disorders center, patients too have expressed frustration about years of failed trials on prescription sleep medications before knowing that behavioral interventions even existed. Behavioral interventions, when available, are often a welcome alternative and/or addition to pharmacotherapy for insomnia for both physicians and patients.

For psychologists interested in embarking in this field, expert Edward Stepanski and host Jon Carlson provide an excellent introduction to the behavioral assessment and treatment of insomnia in the American Psychological Association (APA) Psychotherapy Videotape Series III, *Sleep and Sleep Disorders*. As with each video in the series, the tape is organized into three segments. It begins with a discussion between Stepanski and Carlson, providing an introduction to behavioral sleep medicine; followed by a session between Stepanski and Sheri, a 35-year-old patient with chronic insomnia; and ends with a final discussion between Stepanski and Carlson, illustrating how the behavioral methods were put into practice. Stepanski is clearly experienced and knowledgeable in behavioral sleep medicine, and Sheri represents a typical patient who could present to a primary care physician, sleep disorders center, or general psychotherapy practice (for the comorbid psychiatric conditions).

Overview of Sleep Disorders and Classification Systems

The International Classification of Sleep Disorders (ICSD-2; American Academy of Sleep Medicine, 2005) divides sleep into four major categories: dyssomnias; parasomnias; sleep disorders associated with mental, neurologic, or other medical disorders; and proposed sleep disorders. Within each of these categories, respectively, are specific diagnoses such as inadequate sleep hygiene, sleep terrors, psychosis, and long sleeper. Although psychologists have at least an adjunctive role in the treatment of many of the sleep disorders, the dyssomnias (disorders involving difficulties initiating or maintaining sleep and excessive sleepiness) and sleep disorders associated with mental disorders are those that are most directly relevant to behavioral intervention.

The *Diagnostic and Statistical Manual for Mental Disorders* (4th ed., text rev.; American Psychiatric Association, 2000) provides a less detailed diagnostic scheme for sleep disorders than the ICSD-2, but is probably sufficient for psychologists working primarily with insomnia.

As Stepanski argues, it is important for psychologists evaluating and treating sleep disorders to be knowledgeable about additional sleep disorders that could be contributing to the patient's insomnia (e.g., restless leg syndrome) as well as the effects on sleep of certain medical conditions (e.g., chronic pain; chronic obstructive pulmonary disease) and certain prescription and nonprescription medications (e.g., stimulants; decongestants). A range of psychiatric conditions, including anxiety, depression, eating disorders, and substance abuse can affect sleep as well, and all of these factors have direct implications for treatment.

Primary and Secondary Insomnia

Sleep specialists distinguish between insomnia arising from psychiatric disorders, medical conditions, and medications (secondary insomnia) and sleep-onset difficulties stemming from conditioned arousal, cognitive patterns ("If I can't get to sleep, I'll be exhausted tomorrow. I'll end up being so tired that I'll give a horrible sales presentation. Then, I may get demoted") and learned sleep habits (e.g., watching television in bed; primary insomnia). In primary insomnia, the sleep difficulty is the problem and not considered symptomatic of another condition (Gatchel & Oordt, 2003). Primary or secondary insomnia can be further classified by the time of the disruption in the sleep cycle: (a) onset—*initial insomnia*; (b) after sleeping for a period of time—*intermittent insomnia*; and (c) awakening too early and unable to return to sleep—*terminal insomnia*.

Disrupted sleep is a common symptom of mood and anxiety disorders. Up to 60 percent of patients with major depressive disorder (MDD) report disturbed sleep. Common disruptions include terminal and intermittent insomnia with accompanying daytime fatigue.

Hypersomnolence, excessive sleep of up to 12-18 hours in a 24-hour period, frequently accompanies seasonal affective disorder. Bipolar disorder features extremes of sleep and wakefulness. During manic phases, highly energetic patients may go several days without sleep, with no apparent fatigue. In hypomania, patients will find they need significantly less sleep (e.g., five hours instead of eight) while maintaining high daytime activity levels. During the depressed phase of the illness, patients may experience hypersomnia and excessive tiredness (Czajkowski, Casey, & Jones, 2004).

Initial insomnia often characterizes anxiety disorders, such as generalized anxiety disorder. Patients may lie awake unable to fall asleep because of excess muscle tension, arousal, and rumination. Panic attacks may disrupt sleep while shifting from Phase 2 to slow wave sleep. As panic episodes become more frequent, patients become fearful of going to sleep (Czajkowski et al., 2004). Frequent vivid nightmares may create intermittent insomnia for patients with posttraumatic stress disorder (PTSD). In working with war trauma refugees, we have frequently heard accounts of repeated vivid, terrifying nightmares of family members being killed. These patients are often so frightened by their nightmares that they prefer to remain awake throughout the night.

Although research findings are less specific, primary insomnia may be a predisposing factor for psychiatric distress. Studies using the Minnesota Multiphasic Personality Inventory (Hathaway & McKinley, 1989) found that 80 percent of insomniacs had at least one significant clinical scale evaluation. Of interest, this pattern was evident among patients with clearly established medical causes of insomnia—supporting a direct relationship between sleep problems and psychological distress (Kalogjera-Sackellares & Cartwright, 1997). Population-based studies have also found that of the almost 20 percent reporting “a lot” of sleep difficulty, nearly half exhibited high levels of psychiatric symptoms (Martinez-Gonzalez, Obermeyer, & Benca, 2002; Mellinger, Balter, & Uhlenhuth, 1985).

In reviewing possible secondary causes, Stepanski is particularly thorough in questioning Sheri about any type of ingested substance with potential insomnia-producing qualities. He learns that she uses over-the-counter cold preparations. Sheri herself is surprised that the decongestant pseudoephedrine commonly found in these products could be keeping her awake.

Sheri also drinks a couple of colas per day. A common pattern with insomniacs is to consume large amounts of caffeine to fend off daytime fatigue. Because of insomnia the night before, the sleepiness makes it difficult to work. Although the caffeine temporarily improves alertness, patients find that they gradually consume more coffee, cola, or tea and do so later in the day. Before long, the four liters of daily cola consumption become a major contributor to sleeplessness and a vicious cycle of nighttime insomnia, daytime fatigue, stimulant use, and nighttime insomnia is established.

Other causes of secondary insomnia include medical conditions such as chronic obstructive pulmonary disease and gastro-esophageal reflux disease. Of course, environmental conditions—the lack of air conditioning in persistent 100° heat or a noisy construction site outside the bedroom window—may also cause secondary insomnia.

Although this primary-secondary distinction appears clear, clinical practice shows otherwise. As in the case with Sheri, who describes a long history of depression and a pronounced form of intermittent insomnia, a primary sleep disorder may be comorbid with a mood disorder. Sheri is fairly clear about the initiation and gradual course of her insomnia beginning sometime in her early 20s. She is less specific about MDD symptoms, stating she's been depressed “a long time.”

Sheri's pattern of intermittent insomnia is unusual and not, in our experience, one commonly reported by patients with mood or anxiety disorders. The biphasic pattern of sleeping approximately three hours, being up for two to three hours, and returning to sleep for two to two-and-a-half hours does suggest a primary sleep disorder. Sheri appears to have a “mini day” in the early morning hours in which she does housework or even enjoys shopping at all-night stores. Stepanski's goal is to fuse these two episodes of sleep into one longer period.

Cognitive-Behavioral Interventions for Insomnia

Stimulus control, sleep restriction, sleep hygiene education, relaxation therapies, and cognitive-behavioral treatments have been

shown to be effective in the treatment of insomnia (Nowell, Buysse, Morin, Reynolds, & Kupfer, 1998). As Stepanski demonstrates in the video with Sheri, using a combination of these techniques is often necessary and beneficial to patients.

☰ Stimulus control therapy targets both negative conditioning and circadian factors, with the goals of eliminating sleep-incompatible behaviors and regulating sleep-wake schedules. Patients are asked to go to bed only when sleepy; use the bed and bedroom only for sleep and sex; get out of bed and leave the room when unable to sleep; arise at the same time every morning; and eliminate daytime napping (Nowell et al., 1998).

☰ Sleep restriction involves limiting the amount of time the patient attempts to sleep. Based on his or her two-week sleep diary, the patient is directed to limit the amount of time in bed to a duration that is close to the actual time spent sleeping. For example, if the patient allows eight hours to sleep per night but is usually awake for at least three of those hours, the sleep period would be restricted to five hours. As the patient's sleep becomes more efficient, he or she is directed to gradually increase the amount of time in bed until the sleep requirement goal is reached. This technique allows the sleep debt to facilitate sleep initiation and maintenance (Nowell et al., 1998).

☰ Sleep hygiene refers to behaviors that are detrimental and beneficial to sleep, including diet, exercise, substance use, light, noise, and temperature. Tips for good sleep hygiene are readily available on the Internet as well as in most published literature on insomnia. Some examples include the following: wake up at the same time each day; discontinue caffeine four to six hours before bedtime and minimize daily use; avoid nicotine, especially near bedtime and on waking; avoid the use of alcohol in the late evening; avoid heavy meals too close to bedtime; avoid vigorous exercise within three to four hours of bedtime, as it may interfere with sleep (later afternoon may be best); minimize light, noise, and excessive temperatures during the sleep period; and do not have the clock visible at night (National Center on Sleep Disorders Research and Office of Prevention, Education, and Control, 1998).

☰ Relaxation therapies consist of techniques such as progressive muscle relaxation, autogenic training, and biofeedback. They are designed to reduce somatic and cognitive arousal, which often accompanies insomnia.

☰ Cognitive-behavioral therapies involve identifying dysfunctional beliefs that perpetuate insomnia and replacing them with more adaptive thoughts. For example, patients may believe that they will never be able to pass a test or perform adequately at work if they have less than eight hours of sleep per night (Nowell et al., 1998).

The Development of Orientations in Behavioral Health Psychology

☰ *Sleep and Sleep Disorders* provokes reflection about the scope of behavioral medicine and the range of practice approaches within the field. Stepanski clearly identifies himself as a sleep specialist. Patients with childhood trauma, marital conflicts, symptoms of depression or anxiety go elsewhere—to psychologists who “do that kind of work.” Similar to our physician colleagues, psychologists in health care are dividing into primary and specialty providers. Neuropsychologists were probably the first of these specialists in health care, with pain management practitioners close behind. As the APA Behavioral Health and Health Counseling video series demonstrates, new specialties—for instance, cardiology, asthma, diabetes, genetics—are beginning to develop for psychologists.

☰ At the other extreme, primary care psychology is in the midst of competing models. Some psychologists are providing traditional mental health assessment and psychotherapy services in a shared practice with an internist, pediatrician, or family physician. Many of our behavioral science colleagues in family medicine education continue their quest to bring family systems concepts into the physician's office. Residents are routinely urged to draw their patient's genograms in the medical record, reflect on how illness interacts with the particular stage of the family life cycle, and convene family conferences as part of patient care (McDaniel, Hepworth, & Doherty, 1992; Rolland, 1994).

☰ Strosahl's (1998) problem-focused approach recognizes the time limits of ambulatory care and also the potentially high demand for behavioral health services. The psychologist often sees patients without formal appointments as needed in the primary care clinic. Initial

consultations are sought by physicians who are currently seeing patients in the office. The physician encounters behavioral health issues ranging from domestic violence to cigarette smoking to pediatric sleep disorders to geriatric depression, and the psychologist rapidly assesses and institutes treatment in 25 to 30 minutes. Follow-up visits are limited to one to two 15-minute encounters with the psychologist and include consultation with the patient's physician (Strosahl, 1998).

☞ In watching Stepanski work with Sheri, we thought about how other health care psychologists, including ourselves, might address many of the issues raised. The traditional psychotherapist in me (H. Russell Searight; and apparently in Carlson, too) squirmed a bit at Stepanski's narrow sleep disorder focus. Carlson comments to Stepanski, "She says she had an unhappy childhood. I wait weeks to hear someone confess that in my therapy practice." At several points Sheri mentions being victimized during childhood—sexually molested, emotionally abused, and neglected. While Sheri tears up, Stepanski makes a brief comment about her past having been rough and then gets back to the "real" focus—assessing and treating her insomnia. Having been originally trained by faculty who immersed us in projective testing and who valued therapy skills such as empathy, sensitivity, and the ability to listen at three levels of abstraction simultaneously, my visceral reaction to Stepanski's maneuver was that Sheri's insomnia was only a symptom of other "bigger" concerns (PTSD, MDD) and could not be treated in isolation. Even Sheri agrees: "I come from an alcoholic, abusive family...that's where my depression comes in, that's where my phobias come in, and that's why I can't sleep." Stepanski responds, "How's your appetite?"

☞ My family systems colleagues, on the other hand, would probably become very interested in some of the other aspects of Sheri's life that Stepanski briefly acknowledges before letting them drift away. Sheri mentions that her husband has an alcohol problem. Stepanski also learns that Sheri and her husband share a bedroom. The family therapists would not let this one get away without exploring the possible function of Sheri's "insomnia" (in quotation marks here, because it is an interpersonal interaction, not an intrapersonal illness) in her marriage.

☞ Stepanski's approach is probably most similar to Strosahl's (1998) model. Stepanski and Sheri complete the assessment and begin treatment within the relatively brief time period. Probably the major difference is that if Sheri returned six months later with irritable bowel syndrome, a condition associated with psychiatric distress, Strosahl would treat her whereas Stepanski would be likely to refer her to a colleague. A second difference is that although cognitive treatment of insomnia usually requires six to eight sessions, the behavioral health consultant would typically see Sheri for one or two 15-30 minute follow-up sessions while turning treatment over to her physician.

☞ Largely influenced by the biopsychosocial and continuity-of-care philosophies of family medicine, we find ourselves somewhere in between the consultant and the traditionalist. Family medicine, as a specialty, was established in the 1960s to provide personal broad-based medical care (Future of Family Medicine Project Leadership Committee, 2004). In addition to countering the increased fragmentation of health care through subspecialization, family medicine valued continuous, comprehensive care from a biopsychosocial perspective. In addition, it was assumed that preventive care could be optimized if the physician knew and cared for, as patients, multiple members of the same family.

☞ Although practice in this setting is problem focused, it also maintains a broader perspective on the patient's overall health status, their significant relationships, and social factors (health insurance, transportation) that play a role in health care. As an illustration, each month, our residents and faculty conduct a morbidity and mortality conference in which family medicine patients admitted to the hospital are reviewed. Residents in attendance are repeatedly encouraged to focus on several key questions: "What was the reason for the hospital admission?"; "Could the admission have been prevented?"; "What could be done to prevent future hospitalizations?" Discussions are often wide ranging and include optimal outpatient management of hypertension, congestive heart failure, or stroke prophylaxis. Additionally, long-term risk factors such as smoking, high cholesterol, sedentary lifestyle, and obesity are seen as relevant factors leading to the admission. When asking "What are we doing to keep this patient from having to return to the hospital?", someone will astutely ask, "Who lives with him? Are they able to care for the patient?" Increasingly, we hear of patients who were admitted because their diabetes or blood pressure became uncontrolled after the patient stopped taking medication. "Why weren't they compliant?" one of us asks. The answer: "They couldn't afford the higher copay for their medicine" or "Last month the state cut the rolls of Medicaid recipients—our patient was one of them."

☞ In interviewing Sheri, we would, much like Stepanski, conduct a thorough interview and obtain a detailed history. In addition, we

would carefully query her about symptoms of mood, anxiety, and substance abuse disorders as well as past psychiatric treatment. However, to assist her family physician, who would be seeing her for all health concerns over an extended time, we would gather and describe a more comprehensive psychological "review of systems." Sheri's possible symptoms of MDD would be explored further, with recommendations regarding medication, if indicated. Her reported sexual abuse history is a concern not only for the possibility of subclinical PTSD symptoms (she denies current nightmares) but also to alert her provider for well-woman care. Regular pelvic exams are often particularly traumatic for women with sexual abuse histories. Sheri should be given the option of a female physician for these exams. In any case, the provider should be aware of the history to do everything possible to reduce discomfort and emotional distress during gynecological care and physical exams and to give Sheri as much control as possible.

Conclusion

☰ Viewing the tape as educators, we find that Stepanski is easy to follow and he explains his assessment and treatment clearly. The accompanying Web site includes a blank copy of a sleep diary and a fairly detailed outline of Stepanski's assessment interview. Carlson does a nice job of asking questions that highlight key interview components, and he also raises questions (e.g., "How much sleep do we need?", "Why do teenagers sleep late on weekends?") that allow Stepanski to provide general education about sleep.

☰ With some additional reading and review of the interview outline, practicing psychologists could view the tape several times and could conduct a basic sleep assessment. Additionally, with this added background, they should be able to implement the cognitive-behavioral intervention in patients with uncomplicated primary insomnia. However, clinical knowledge of the range of medications that impact sleep as well as medical conditions to consider would require additional training. In particular, Stepanski's judgment that Sheri could benefit from focused cognitive-behavioral insomnia treatment, despite her other issues, is also the mark of a more sophisticated specialist.

☰ This tape would be an excellent addition to a graduate psychology course in clinical sleep disorders or behavioral medicine. Stepanski's focused and efficient interview could also probably find a receptive audience among some of our busy primary care physician colleagues.

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