

Forty Winks: The Organizational Benefits of Reducing Employee Sleep Deficit

Pamela R. Johnson, Ph.D.
Department of Management
California State University
Chico, CA 95929-0031
USA
E-mail: pjohnson@csuchico.edu

Julie Indvik, Ph.D.
Department of Management
California State University
Chico, CA 95929-0031
USA
E-mail: jindvik@csuchico.edu

ABSTRACT

Americans are tired and instead of working to live they are living to work. Previously, the pace of life was dictated by nature, hours of sunlight, and the tides. Now, it is being dictated by economic necessity, and the boundaries between work and life are being blurred. In fact, 70 million Americans are sleep-deprived. Many companies are now beginning to address employee fatigue because they recognize that fatigue is behind on-the-job accidents, absenteeism, lower productivity, and higher health care costs. This paper will describe the causes of sleep deprivation, the costs to organizations, the benefits of power napping, what employees can do, what companies have done, and what other companies can do to help their workforce feel better while

improving productivity and at the same time reducing accidents and health care costs.

Keywords: *Organizational Benefits, Employee Sleep Deficit, Sleep Deprivation, Costs to Organizations, Benefits of Power*

INTRODUCTION

“But I have promises to keep, and miles to go before I sleep, and miles to go before I sleep.” Robert Frost

The human body has been taking a beating, sleep-wise, since 1879 and the invention of the light bulb. The invention of the light bulb and the Industrial Revolution changed everything (An eye-opener, 2001). Old diaries and letters suggest that people were logging about nine hours a night before 1913; then Edison invented the light bulb. Part of the reason he did was that he really felt people were using darkness as an excuse not to work and he wanted to increase our productivity (Kirkey, 2003). Now people sleep only about seven hours a night.

Americans, in large numbers, are tired. It shows up in lost productivity, depression, higher health-care costs, more car crashes, and tattered relationships. Sleep deprivation may kill concentration or cause behavior problems, mood swings, and memory lapses. We have a huge national sleep debt; and we are servicing that debt with high interest (Collins, 2006). We eat when we are hungry, and drink when we are thirsty, so why are people not sleeping when they are tired? Sleep, it seems, has become a luxury (Gordon, 2004). In addition, The National Sleep Foundation has said that Americans are getting both less sleep and less sex in the bedroom. Instead of working to live, Americans are living to work (Hatfield, 2001). Also, there is this notion somehow or another that if you sleep a lot, you are lazy and

useless. Add that to our frenetic lives, the growing numbers of harried, dual-income families trying to cope with the demands of work and home, the seductive all-night allure of the Internet, and it is little wonder we have become a nation of walking zombies (Kirkey, 2003). Not getting enough sleep makes people clumsy, stupid, unhappy and dead. We are a society that has ritualized the sleep deprivation that caused such disasters as the Exxon Valdez, Chernobyl, and the Challenger accidents. And, human beings are the only known organism that sleep deprives itself (Sandberg, 2004).

Margaret Thatcher claimed that she needed only four hours' sleep. Leonardo da Vinci is reputed to have slept 15 minutes every four hours. Napoleon advocated six hours' sleep for a man, seven for a woman and eight for a fool (Crompton, 2003). Previously, the pace of life was dictated by nature, hours of sunlight, and the tides. Now, it's being dictated by economic necessity, and the boundaries between work and life are being broken. Many people go home from work, have their dinner, then start work again. So we spend more time in an aroused state, have less time to wind down, find it more difficult to fall asleep and find our sleeping patterns upset (Crompton, 2003). In fact, about 70 million Americans are sleep-deprived (McCall, 2004).

With employee health-related issues impacting the bottom line of many companies, management executives are addressing employee fatigue as a major factor behind on-the-job accidents, absenteeism, and lowered productivity, and they are looking at new ways to solve the problem (Atkinson, 2000).

Even folk wisdom contains truth: "Early to bed, early to rise, makes a man healthy, wealthy and wise." Aside from being a plea for the benefits of hard work, Benjamin Franklin was aware of our circadian rhythm, that 24 hour cycle biologically timed to daylight and nightfall. The first is our period of work, and the other our period of slumber, a

phenomenon we share with most, if not all, mammals (Coates, 2004). This paper will describe the causes of sleep deprivation, the costs to organizations, the health benefits of power napping, what employees can do, what companies have done and what companies can do to help their workforce sleep better while improving productivity and reducing accidents and health care costs.

CAUSES

“Blessed barrier between day and day.” William Wordsworth

A National Sleep Foundation survey found that 68 percent of Americans get less than the recommended eight hours of sleep a night on weeknights, and 39 percent get less than seven hours (Barnes, 2004). Bedtime is getting later and the morning comes earlier all over the country. A comprehensive survey conducted by the Better Sleep Council found that 31 percent of employees surveyed admitted that lack of sleep affected their work, and 29 percent said they did not feel rested when they awoke before going to work. In addition, another survey found that 38 percent of employees admitted to napping at work. Most of them napped in break rooms, bathroom stalls, or in their cars in the parking lots so they wouldn't get caught (Atkinson, 2000).

There are numerous causes for this sleep deprivation. Technology adds to overworking. We are not just working 9 to 5 anymore. People are more overworked, because they are worried about job security. Terrorism warnings, war, and the economy are all folding into one perfect storm (Joyce, 2003). In addition, the challenges of advancing in careers, satisfying clients, reaching sales goals, rearing children, and maintaining homes have created a class of sleep-deprived workers. Finally, under pressure to raise efficiency and productivity, more

workplaces are operating around the clock. But the toll on employees' health and wellness can be considerable, including fatigue, increased risks of certain illnesses, and a diminished social and family life. Fatigue, sleep deprivation, and stress are all present (Schur, 2005). In fact, at least 50 percent of the American adult population is chronically sleep-deprived (Atkinson, 2000).

In addition, globalization has brought about the 24-hour business day. Thousands of companies have baton-passing rituals. Offshoring, or the migration of jobs to lower-cost countries such as India, China and Russia, has started this cycle. Cheaper labor and faster work flow have made offshoring a fact of life for many companies. This offshoring has resulted in longer, stranger hours for white-collar workers in the United States. Silicon Valley workers grumble that communicating with colleagues overseas requires midnight teleconferences, 6 a.m. video meetings and cell phones going off all night long. The 24-hour business cycle is extremely stressful. And today's long hours are less likely to result in windfall bonuses or stock options, and there is no end in sight (Konrad, 2005).

COSTS

“There is a time for many words, and there is also a time for sleep.”
Homer

The National Commission on Sleep Disorders recently reported that decreased productivity and accidents in the workplace cost the nation \$150 billion a year (An eye opener, 2001). In simple terms, tired managers and employees cost an organization money. Among the expenses are increased workers' compensation costs from accidents and injuries; increased health care costs and absenteeism from increased illnesses, and reduced profits from lower levels of

productivity. Lack of sleep leads to drowsiness during the daytime, and drowsiness leads to decreased motor performance, cognitive performance and reaction time. Drowsiness also leads to reduced concentration, memory, communication skills, decision making skills and ability to handle complex tasks. Even minimal sleep loss over the period of a few days will make you stupid (Atkinson, 2000).

Shortened sleep can lead to reduced brain levels of leptin, the hormone that controls appetite. Get too little sleep and the brain signals us to eat complex carbohydrates, starches and sugars which make us fat. In addition, studies have found that people who sleep six hours or less a night have an increased risk of high blood pressure, heart attacks and stroke. Just one bad night can have a dramatic effect on alertness, concentration, and judgment, and chronic sleep deprivation can lead to anxiety and depression (Kirkey, 2003). Sleepiness has now surpassed alcohol and drugs as the greatest identifiable cause of accidents. If a person is up for 22 hours, the deficit in cognitive and motor skills is equivalent to having a .08 blood alcohol level which means the person is considered legally drunk in some states (An eye-opener, 2001).

Not surprisingly, sleeplessness is a growing problem in the United States as well as a growing business. A record 43 million prescriptions for sleeping pills were filled last year, resulting in more than \$2 billion in sales for drug companies. Medication is one answer. Relatively new prescription drugs like Ambien and Lunesta are generally effective and pose a lower risk of dependency than earlier sleeping pills (Lazarus, 2006).

Another way to address sleeplessness is to take a “wake pill.” Modafinil (sold as Alertec in Canada and Provigil in the United States) can keep you awake for 40 hours without the jitteriness, agitation, anxiety, and insomnia associated with other brain stimulants,

including caffeine. In fact, “wake-promoting” agents have become one of the hottest fields of drug research with a vast, mostly untapped, market potentially worth millions. People have always searched for ways to get by on less sleep. Coffee has become the second most commonly traded commodity in the world, next to oil. But now athletes, CEOs, college students, and everyone who wants to stay awake all day long with minimal sleep are asking their physicians for prescriptions for Modafinil (Kirkey, 2003).

POWER NAPPING

“Rest is not idleness . . . “ Sir J. Lubbock

Napoleon did it on the battlefield. Brahms did it at the piano. Edison did it on his desk. Einstein did it between equations, da Vinci between paintings, and Winston Churchill throughout World War II. John F. Kennedy, Lyndon Johnson, Ronald Reagan, and Bill Clinton did it when they were president; they all took naps (An eye-opener, 2001).

The mechanics of the human body don't mesh very well with a 9-to-5 day. Researchers have found that when humans are fed at regular intervals and deprived of all sources of time, such as light and clocks, they have the greatest tendency to fall asleep during two periods of the day: between 1 a.m. and 4 a.m. and 1 p.m. and 4 p.m. These are natural dips in our biological clocks, or circadian rhythms, and the core body temperature drops along with a person's eyelids. In the afternoon, all these physiological and mental processes begin to go into a dip. This dip used to be thought of as a post-lunch dip. But it has been shown to occur when people eat or don't eat. In fact, from the moment you wake up in the morning, there is pressure driving you back to sleep (Sandberg, 2004).

Napping is an established part of the day in many cultures, including India, Italy and Mexico. But U.S. businesses overwhelmingly remain resistant to embracing the siesta culture. In fact, a survey by the National Sleep Foundation shows that less than one in five U.S. adults have napping privileges at work (Barnes, 2004). Strangely, most workplaces consider artificial stimulation more acceptable than true rejuvenation, when it comes to combating daytime sleepiness (O'Connor, 2004). Employers don't mind if their employees take a coffee or a smoke break, but if you take a nap, you will probably get fired. The problem is that many workers don't get breaks, and those who do don't have the time or place to nap (Barnes, 2004).

Yet, in this era of litigation, companies should not underestimate the danger of working employees to burnout levels. And, the good news is more and more companies are realizing that power napping can result in increased productivity, creativity and general alertness of their employees (An eye-opener, 2001). In fact at Firefly Communications, a "re-charge room" has been established where staff can power-nap for 20 minutes. It has comfortable chairs, dim lighting and earphones with music (Gordon, 2004).

WHAT CAN EMPLOYEES DO?

"Sleep is the best meditation." Dalai Lama

There are a number of things that employees can do to reduce their sleep-deprived condition:

- No caffeine late in the day
- Limit alcohol
- Lots of exercise but not before bedtime (Lazarus, 2006)
- Eat healthy snacks and avoid eating too much or too little

- Get enough rest; fatigue makes it harder to cope with stress situations
- Seek out positive people
- Meditate or pray
- Do volunteer work for a favorite cause or charity
- Go to a funny movie (Olsztynski, 2006).

WHAT SOME COMPANIES HAVE DONE

“Bored people, unless they sleep a lot, are cruel.” Renata Adler

While nap rooms may sound a bit out there, there is a precedent for napping at Burlington Northern Santa Fe Railway. When trains are stopped, crewmen can nap as long as one remains awake, and maintenance workers can nap in their vehicles during breaks (Mandell, 1999). Guess provides its employees with pamphlets that focus on stress and fatigue management. Also, Guess has an on-site cafeteria that provides balanced meals and a zero-tolerance policy for alcohol in the workplace (Atkinson, 2000). In addition, British Airways allows pilots on transoceanic flights to catch a few winks so they will be more alert when landing. A number of Silicon Valley companies have set up nap rooms, complete with reclining chairs, blankets, alarm clocks, even piped-in classical music, for their employees. Nike is just doing it, too, and so is the U.S. Army, whose studies have convinced their top brass to allow officers a nod or two while on the job. Also, Pizza Hut International allows its employees nap time, and executives at companies such as AT&T, Metropolitan Life and McDonald’s have at least participated in Power Napping workshops (An eye-opener, 2001).

Yarde Metals, headquartered in Bristol, Conn has built a “corporate facility leisure room.” This room has a waterfall in the center and is surrounded by four smaller rooms. Yarde Metals’ nap policy works

because the boss encourages it and sees its benefits. Senior management's thumbs-up to the idea can go a long way. It's not problematic, there is little cost, and there is a productivity gain (Fox, 2000).

WHAT OTHER COMPANIES CAN DO

"It is better to sleep on things beforehand than lie awake about them afterward." Baltasar Gracian

There are many things that companies can do to help their sleep-deprived employees. For example:

- Purchase furniture to suit office naps, including power nap executive chairs that recline, massage the head, and envelop it in darkness.
- Schedule regular rest periods. It is important to get the body used to napping at about the same time every day, for about the same length of time. Most people feel tired about eight hours after awakening (Fox, 2000).
- Consider replacing the common five-day, eight-hour shifts with four-day 10-hour shifts. This will give employees opportunities to catch up on sleep.
- If you require employees to work a great deal of overtime, provide transportation home or encourage them to take public transit. The chances of auto accidents are greatly multiplied if overtired employees drive themselves home.
- Maintain a temperature on the cool side.
- Provide a nap room. Short naps, 15-20 minutes long are better than longer ones because employees are less likely to awaken feeling sluggish (Mandell, 1999).
- Maintain good indoor air quality.
- Make the work environment ergonomically correct.

- Provide sleep resources such as the National Sleep Foundation at www.sleepfoundation.org, America the National Center on Sleep Disorders Research at www.aasmnet.org to your employees.

CONCLUSION

“Sleep perchance to dream” Shakespeare

Whether employers like it or not, employees are already catching up on their sleep in bathroom stalls or in their cars on lunch breaks. For many, it is the price paid for economic prosperity and an American work ethic that is in overdrive. We now work longer hours than any other industrialized country in the world, have longer commutes, and are connected to the office 24 hours a day through a variety of electronic communication devices. Napping might sound like a crazy idea, but it really is a natural extension of our current working climate. What companies will receive in return is lower absenteeism, lower health care costs, fewer cranky employees, and higher productivity. What's not to like about that?

REFERENCES

- An eye-opener: Catnapping at work pays. (2001, March 18). *Times-Picayune*, 15.
- Atkinson, W. (2000). Employee fatigue: The new epidemic. *Bobbin*, 42(1), 116-118.
- Barnes, R. (2004). Despite evidence workplace naps can increase productivity, employers skeptical. *Knight Ridder Tribune Business News*, 1.
- Coates, J. (2004). Sleeping on the Job: Some considerations for HR. *Employment Relations Today*, Winter, 30(4), 11-21.

- Collins, L. (2006). Sick and Tired: Sleep disorders are taking a toll. *Deseret News*, A01.
- Crompton, S. (2003). Are you tired all the time? *The Times*, 10.
- Fox, R. (2000). Sleeping on the job. *Incentive*, 174(10), 8.
- Gordon, B. (2004). Overworked? Relax with an afternoon nap. Think-tank urges firms to provide rooms for employees to have 20 minutes' sleep. *The Daily Telegraph*, 14.
- Hatfield, L. (2001). Look at what's getting in the way of sleep. *San Francisco Chronicle*, A2.
- Joyce, A. (2003). Revenge of the underappreciated? Companies that overwork employees may lose them when economy recovers. *The Washington Post*, F06.
- Kirkey, S. (2003). Giving sleep a rest. *National Post*, A17.
- Konrad, R. (2005). Global firms' workday never ends; 24-hour jobs. *Seattle Times*, C3.
- Lazarus, D. (2006). Lifestyle changes may be surest path to sleep. *San Francisco Chronicle*, J1; J6.
- Mandell, M. (1999). Fighting off sleep. *Network World*, 16(14), 41.
- McCall, W. (2004). Study: Sleep helps problem-solving. *Cincinnati Post*, A3.
- O'Connor, T. (2004). Corporate naptime: Sleep on the job. *Intheblack*, 74(9), 72.
- Olsztynski, J. (2006). 15 ways to reduce stress in your work, life. *Snips*, 75(1), 85.
- Sandberg, J. (2004). Bosses may disagree, but a quick nap shows how smart you are. *Wall Street Journal*, B1.
- Schur, C. (2005, October). Managing shift worker health and safety. *Canadian HR Reporter* 18(18), 7-8.