The wake-up call for sleepy managers

Vicki Culpin and Angela Whelan share the findings of research which demonstrates that managers are experiencing poor quantity and quality of sleep, and encourages them and their organisations to be aware of the – sometimes disastrous – consequences of ‘sleepiness’.

What do events such as the Chernobyl nuclear explosion, the Exxon Valdez oil spill and the Challenger space shuttle disaster have in common? All three catastrophes were the result of controllable but unexpected and unusual malfunctions: it was human error – in the failure to notice and act upon the malfunctions – that led to disaster. Individuals operating within these three environments embarked on inappropriate courses of action and maintained these, despite clear indications (including warning systems) that their original assessment of the situation was wrong. Human error can be a result of a wide range of factors; some related to the individual, some situational and/or environmental and others a combination of the two. For Chernobyl, Exxon Valdez, Challenger and a range of other disasters including Three Mile Island, the error was a direct consequence of sleepiness.

How ‘sleepy’ is ‘sleepy’ and what impact does this have on behaviour for a typical manager? Whilst sleep deprivation may be thought of in the domain of army training or as a method of torture, it takes relatively little sleep loss to lead to a range of cognitive and behavioural changes that will directly impinge on the ability of an individual to effectively carry out their role. A reduction in sleep by only 1½ hours per night for one night alone can result in a decrease in...
daytime alertness by 32%. As a leader, are you creating a work environment that encourages long hours based on the assumption that long hours creates greater productivity? If a manager has a team of three members who are working with only that minor level of sleep deprivation, then the resultant performance decrement is equivalent to one full-time individual. In addition, 17 hours of sustained wakefulness (for example a long day at work) has been shown to result in changes in some behaviours equivalent to drinking two glasses of wine. If that wakefulness becomes 24 hours (for example a long flight) then the individual is performing with the equivalent of having drunk four glasses of wine (blood alcohol level of 0.1%); with potential changes in speech, motor functioning, levels of aggression and impulsiveness, memory, decision-making and problem-solving. It is little wonder that the latest figures suggest that one in five car accidents is a direct result of sleepy drivers.

Not all behaviour is affected by poor sleep. Logical, deductive and critical reasoning, the types of skills and abilities measured in a traditional IQ test, are unimpaired, even after long periods of sleeplessness. However, leadership skills and competencies, known as ‘executive functions’ are highly susceptible to even relatively minor sleep loss, and include:

- Comprehending and coping with a rapidly changing environment
- Multi-tasking
- Producing innovative solutions to problems
- Assessing risk and anticipating the range of consequences of an action
- Controlling inhibited behaviour
- Communication skills
- Updating the big picture
- Decision-making involving complex and creative ideas.

The key Emotional Intelligence (EI) competencies including emotional self-awareness, accurate self-assessment, self-confidence, self-control, empathy and influencing have also been shown to be adversely affected by fatigue. However, individuals with higher EI are “protected” from the adverse effects of sleep loss on these competencies when compared with individuals who have scored lower on the EI scales. Unfortunately, while an individual may excel on accurate self-assessment, it is likely that their ability to appreciate the effect of sleep loss on subsequent performance diminishes after only one night of poor sleep. Using a self-check measure of ‘Am I sleepy? Do I feel OK?’ may not be enough to understand the impact of poor sleep on behaviour. For example, in a study of 1,000 individuals who reported no daytime drowsiness, 34% were shown to be ‘dangerously’ sleepy.

Whilst all of the research cited above is important for managers, the studies have not specifically focused on managerial populations. Researchers at Ashridge, therefore, undertook a study to understand the sleeping patterns of a sample of 339 managers. As the impact of poor sleep on ‘executive functioning’ is so pertinent to the managerial population, the specific aim of the research was to examine whether individuals working within the business sector were self-reporting poor sleep; poor enough to result in negative behavioural and cognitive changes. Individuals completed a questionnaire that examined self-reported quality and quantity of sleep along with two standardised sleep measures (the Epworth Sleep Scale and the Stanford Sleepiness Scale) and a series of health-related questions. Key findings from the study are summarised in Figures 1 and 2, Sleepy statistics and Sleepy behaviour.

On average, the sample of managers reported to be sleeping for fewer than seven hours a night, slightly lower than the average for the general population. Perhaps of
greater concern is the fact that the amount of reported sleep per night decreased as managerial level (and thus the complexity and impact of decision-making, problem-solving etc) increased. The health consequences of this length of sleep (under seven hours) are well documented and range from the serious concern of increased likelihood of hardening of the arteries7 to the mundane common cold (where individuals who slept for fewer than seven hours a night were three times more likely to catch a cold than those who slept for eight hours or more)8. In addition, the risk of developing late-onset diabetes and coronary heart disease has shown to increase in individuals who sleep for between 6½ hours and 7½ hours compared with those individuals sleeping for between 7½ hours and 8½ hours9,10.

Previous research has consistently demonstrated that it is both the quality and the quantity of sleep that impacts upon cognition and behaviour. For example, a study11 found sleep quality to impact upon absenteeism, levels of work performance, personal relationships and physical health amongst white collar workers. Horne12 also notes that a good night’s sleep is one that is uninterrupted, with few awakenings and should leave us feeling refreshed and alert during the day. Therefore, it is simply not just a matter of how much sleep at night an individual achieves, but also the quality of that sleep. The results of the research at Ashridge indicate that managers not only have a restricted quantity of sleep (fewer than seven hours) but also suffer from poor quality, with 80% of the sample reporting waking up at least once, and 30% feeling ‘bad’ in the morning. As a manager, what impact may this have on the behaviour within the organisation? As Doi et al note13, comprehensive countermeasures against poor sleep quality need to be considered not just at an individual level but also at the level of the organisation.

Figure 1.
Sleepy statistics
Managers spend, on average, fewer than seven hours asleep at night and this amount decreases as job seniority increases

Over 80% of individuals wake up at least once during the night taking approximately 15 minutes to fall back to sleep

The length of time taken to fall back to sleep once awake increases with job seniority – CEOs take an average of 30 minutes to fall asleep after each time they wake

50% of the sample felt tense when trying to fall asleep and 30% report that they feel ‘bad’ when they wake in the morning

72% of managers noted that they found it difficult to concentrate on tasks because of lack of sleep

Figure 2.
Sleepy behaviour
The most commonly reported effects of poor sleep for the sample of managers were (in order)

• Fatigue
• Attention difficulties
• Headaches
• Memory problems

When managers are tired the most frequently occurring symptoms are (in order)

• Concentration problems
• Mood changes
report 14 into the Challenger disaster noted quality and quantity of sleep. An official may be operating whilst suffering both poor that individuals in positions of responsibility Challenger, research at Ashridge has shown proportions relating to Chernobyl or decision will lead to a calamity of the consequence of a poor workplace While the average manager may not feel that the consequence of a poor workplace decision will lead to a calamity of the proportions relating to Chernobyl or Challenger, research at Ashridge has shown that individuals in positions of responsibility may be operating whilst suffering both poor quality and quantity of sleep. An official report 14 into the Challenger disaster noted that ‘working excessive hours, while admirable, raises serious questions when it jeopardises job performance, particularly when critical management decisions are at stake’. It is now, during these turbulent times, that ‘executive functioning’ is paramount. Individuals must work with uncertainty, consider the bigger picture and anticipate risk in a way that is unprecedented. It is also a time when increased stress and job pressures may lead to a reduction in sleep quality and quantity; a sacrifice that individuals cannot afford to make.

Figure 3.
Sleep hygiene
• Maintain a fixed bedtime and wakening time
• Avoid alcohol and caffeine 4-6 hours before bedtime
• Avoid heavy, spicy or sugary foods 4-6 hours before bedtime
• Exercise regularly but not directly before bed
• Keep the room well ventilated and ensure an appropriate temperature
• Block out all distracting noise and eliminate as much light as possible
• Reserve the bed for sleep
• Try a light snack before bed (e.g. warm milk and foods high in the amino acid tryptophan, such as bananas)

Figure 4.
Sleepy facts
The official record for the longest period without sleep is held by Randy Gardner who spent 264 hours without sleep in 1964 although a recent (but not substantiated) attempt by a student at Liverpool John Moores University notes a deprivation lasting 502 hours! Any exercise may improve the quality of sleep, but the most effective way is to carry out exercise that heats the head; hot heads are considered to indicate a tired brain, therefore leading to greater deep sleep

The most effective way to power nap is to fall asleep with a set of keys in the hand – when the body starts to drift into deep sleep, which should be avoided in a power nap, the keys will fall to the floor, waking the individual

References
3. Ibid.

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Ashridge, Berkhamsted, Hertfordshire HP4 1NS, United Kingdom
Telephone: +44 (0)1442 843491 Facsimile: +44 (0)1442 841209
Email: contact@ashridge.org.uk Corporate website: www.ashridge.org.uk
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