

Working safely on night shifts

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A better understanding of sleep can help doctors cope better with working nights and ultimately benefit patients too, says Dr Michael Farquhar.

The NHS is a 24-hour service, which means night shifts are an unavoidable fact of working life. But that should not mean that sleep deprivation is an accepted rite of passage for hospital doctors. Everyone needs sleep and yet few of us understand how many hours we need to function well, and there are now so many distractions competing for our attention that bedtime is seldom a priority.

According to one recent survey more than a third of UK adults believed they were not getting the right amount of sleep, more than in 13 other countries. But chronic sleep deprivation has damaging consequences for our productivity, well-being and health. It has been linked to road accidents and mental health problems, as well as increased long-term risk of conditions such as diabetes and cardiovascular disease.

Dr Michael Farquhar knows from personal experience how disturbed nights have a detrimental effect on health and wellbeing. 'When I was 14 or 15 I started to experience episodes of sleep paralysis,' he recalls. 'At the time, it was terrifying but my GP couldn't diagnose the problem. It prompted me to start researching the symptoms myself and my interest has steered my career ever since.'

Now a consultant in paediatric sleep medicine, Michael treats young patients who have sleep disorders, as well as those struggling to get enough sleep because of other health conditions. 'If my patients don't sleep well, they don't recover well either,' he says, 'but the importance of sleep is universal and applies equally to healthcare professionals!'

Night shifts

But for hospital doctors who have to work irregular hours, getting enough sleep can be challenging. Levels of fatigue among junior doctors are being monitored with concern by the GMC after its national training survey revealed that more than half of doctors worked beyond their rostered hours and 22% said that working patterns left them short of sleep on a daily or weekly basis.

In particular, rotating night shifts are known to disrupt the body's natural circadian rhythm of wake and sleep, which is affected by environmental light. 'We have not evolved to be awake at 1am and asleep in broad daylight,' Michael elaborates.

'This makes it harder to get the right duration of good quality sleep after a shift and means everything is stacked against you when trying to get back to a normal pattern. It's the same sense of dislocation you have from jet-lag; imagine trying to function in a high-pressure hospital environment after stepping off a flight from Sydney.'

Patient safety

Michael warns that fatigue is a risk to patient safety. 'It's important to look at what happens when we are sleep-deprived. The first thing we lose is insight, which is dangerous because the brain convinces itself that everything is absolutely fine and we are more likely to persevere when doing the wrong thing. Our sense of empathy is more likely to fade at 3am when we are tired, under-pressure and much more likely to lose our temper with colleagues and patients.'

'Clinicians are more likely to make errors in simple repetitive tasks, such as calculating medication. In my own specialty of paediatrics, for example, a patient in intensive care might weigh less than a bag of sugar - getting a decimal point in the wrong place could make difference between the patient's survival and death. And our ability to process, retain and analyse information suffers too which means it takes longer to assess a patient's symptoms and reach a diagnosis.'

Of course, concerns about working hours are nothing new; 80 or even 90-hour weeks were a feature of hospital life before the European Working Time Directive introduced a cap on average weekly hours and mandatory rest for doctors-in-training. But while some doctors look back fondly to the camaraderie of the old days, Michael is quick to point out that previous working practices would be impossible now.

'Since I qualified, hospital medicine has become so much busier and the workload more complex,' he says. 'Compared with only ten years ago, current admission figures and patient turnover are far higher and the pressure is much more intense.'

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Impact and information

One thing that hasn't changed is NHS hospitals' dependence on junior doctors to provide a 24-hour service. But while this makes night shifts a necessary evil, Michael wants newly-qualified medics to be better informed and equipped to minimise the impact on their sleep. 'Doctors should know how much sleep they need to function and have a personal responsibility to be properly rested when they arrived for a night shift. Working an 18-hour shift without a break can have the same effect on reaction times as being at the legal drink-drive limit.'

However, this is not just up to individual doctors. 'Employers have a shared responsibility,' he insists. 'For example, models of working have to be supportive, ensuring there is cover for staff to take proper breaks. In my experience, teams that function properly will ensure this happens.'

At his own trust of Guy's and St Thomas' Michael is on a mission to teach colleagues about the dangers of sleep deprivation, including a workshop which gives practical tips on how to manage night shift working. The training is now part of mandatory induction for foundation year doctors and he hopes that more NHS Trusts will take this step.

'We don't really talk about the importance of sleep in medical school but doctors quickly see the relevance and the feedback has been very positive. I really want them to understand what they can do to improve their own sleep and be confident that they will have their employer's support if they raise concerns.'

More broadly, Michael wants the NHS to move away from its counterproductive long-hours culture and embrace sleep as part of self-care. 'There is a myth that 'heroes' need less sleep than ordinary people, but we need to acknowledge that the staff who hold the NHS together aren't superhuman. In a high pressure environment where you can change lives in a heartbeat, we owe it to ourselves and our patients to take sleep seriously.'

Sleep right - Michael's tips for coping with night shifts

1. Establish a regular sleep routine so you know how much sleep you need to function. Adults typically need seven to eight hours' sleep each night.
2. Ensure you are properly rested ahead of a night shift rotation. If possible, try to 'bank' sleep, eg by having an afternoon nap ahead of your shift.
3. Keep well-hydrated and maintain your regular eating pattern as much as possible during night shift rotations. Bring in healthy food to your shift if your hospital canteen is closed at night rather than using vending machines.
4. Don't depend on caffeine to get you through, especially towards the end of a shift, as it can affect sleep quality and duration for up to six hours. However, drinking a coffee before a short break-time nap can help you wake up feeling refreshed.
5. Take all your entitled breaks during shifts.
6. If you're tired, don't attempt to drive home. Instead, use public transport, a taxi, or sleeping accommodation if this can be provided by your employer.
7. Try to get to bed as soon as possible. A light meal is a good idea but don't be distracted by TV or other electronic devices.
8. Create the best possible environment for sleep when you come off night shift. The ideal is a cool, quiet, dark room and a comfortable bed. Avoid taking sleeping pills.
9. After your final night shift, try to return to your normal sleep routine as soon as possible.
10. Raise concerns with your line manager if you believe the current rota arrangements are unsafe.