Fatigue management for optimal well-being and performance

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Je n’ai aucune affiliation (financière ou autre) avec une entreprise pharmaceutique, un fabricant d’appareils médicaux ou un cabinet de communication.
Learning Objectives:

• Describe the multi-factorial aspects of fatigue in medical practice;
• Discuss the effects of fatigue on personal well-being and clinical performance;
• Identify concrete strategies for managing fatigue.
What creates fatigue in your daily work life?
Multiple Fatigue Factors

- Sleep Debt
- Circadian Rhythm
- Time Since Awakening
- Cognitive Load
- Time on Task
- Physical Demand
- Motivation
- Environmental (noise, lighting, temp., etc.)
- Relationships (trust, humour, shared load)
- Individual Factors (genetic)
- Other physiological factors (hydration, nutrition etc.)
Individual Differences in Fatigue Vulnerability

• The scientific and operational communities’ reliance on group data as opposed to individual data may entail substantial mis-estimation of the impact of job-related stressors on safety and performance.

In more stressful contexts, attention becomes highly focused on tasks we identify as being of dominant importance… our ability to differentiate between relevant cues and irrelevant cues is impaired, often resulting in a perseveration of attention on a narrow, sometimes inappropriate set of stimuli.

Key Areas of Fatigue

Physical Fatigue

Mental Fatigue

Emotional Fatigue

Motivational Fatigue
Decision Fatigue

• "We find that the percentage of favorable rulings drops gradually from 65% to nearly zero within each decision session and returns abruptly to 65% after a break."

Danzigera (2011)
Nutrition and Cognition

- Improved speed and accuracy on simple and complex cognitive tasks
- Lower and less variable blood glucose levels
- Higher nutrient intake, better hydration
- “I do feel sleepy after the mid day meal... At times I am short tempered with staff and surly and sometimes they will bring me food and it helps. Does it affect how I treat colleagues? Yes, from an emotional and interpersonal way, but heaven forbid it would impact patient care. I don't think so. I would notice it and eat.”

Physician nutrition and cognition during work hours: effect of a nutrition based intervention  Lemaire et al. BMC Health Services Research 2010, 10:24
Emotional Exhaus...
Physical Fatigue

Monitoring, sustaining and replenishing our physical energies are the basic foundational activities upon which we build our personal and professional well-being and success.
Chronic Stress and Recovery

“Sleep loss … can be associated with decrements in vigilance, reaction time, psychomotor co-ordination, information processing, and decision making (e.g., fixation on certain aspects of a situation to the neglect of other information).”

Recognizing Sleep Deprivation in Residency

- Repeatedly yawning and “nodding off” during conferences or other sedentary activities (driving)
- Loss of ability to perform usual activities quickly
- Poor memory, concentration, judgment
- Irritability, moodiness, depression
- Dozing off while writing notes/orders or while reviewing medications/labs
- Repeatedly checking your work

Tisha Wang, MD UCLA The Effects of Sleep Deprivation and Implications for Residency Training
Sleepiness in residents is equivalent to that found in patients with serious sleep disorders.

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The Essential Role of Sleep

- Sleep will not only reset alertness, mood, and performance capacity to normal levels after a night of sleep. It will also regenerate the CNS, the metabolic system, the endocrine system, and the immune system.

Sleep Inertia and the Pager

• Sleep inertia dissipates exponentially, but the first 15–30 minutes after waking are a particularly vulnerable period.

• Performance decrements at this time can exceed those experiences after 24 hours of continuous wakefulness.

  • Lockley SW, Barger LK, Ayas NT, Rothschild JM, Czeisler CA, Landrigan CP; Effects of health care provider work hours and sleep deprivation on safety and performance. Jt Comm J Qual Patient Saf. 2007 Nov;33(11 Suppl):7-18
What are your best strategies for managing fatigue for your self and your trainees?
Strategic Caffeine Use:

- Strategic caffeine use includes avoiding it when alert—-at the beginning of a work period or just after a nap. Consumption should begin about an hour before expected times of decreased alertness (e.g., 3am – 5am).
Stay Active and Engaged

• Try to stay active during on-call shifts (e.g., take a walk during breaks or climb stairs between floors).
Strategic Napping

• Brief (1 - 2 hours) napping prior to prolonged period of sleep loss.
• Naps should ideally be frequent (every 2 - 3 hours) and brief (15 - 30 minutes).
• If you can pick just one nap, get it as early in the period of sleep deprivation.
• Time naps during circadian window of opportunity, between 2 - 5 a.m. and 2 - 5 p.m.

• Kimoff J., Nguyen A. Managing Sleepiness and Fatigue in Medical Training: Introduction to the Practice of Medicine: Med 3 July 2007
Recovery Sleep:

• Be sure to get adequate sleep before anticipated sleep loss.

• Plan for adequate recovery sleep. Data indicates that it takes two nights of extended sleep to restore alertness after a night of total sleep loss.

• A period of recovery sleep time greater than 10 h TIB would be needed for full recovery after 5 nights of sleep restriction to 4 h TIB per night.

• Banks S., Van Dongen H., Maislin G., Dinges D. Neurobehavioral Recovery Dynamics from Sleep Restriction. SLEEP, Vol. 33, No. 8, 2010

• There is evidence that melatonin has a soporific effect … particularly when taken to phase-advance the sleep period.

  Arnedt (2005)
Pre-Sleep Relaxation Ritual

Body scan & Breath
Experimenting with Fatigue Management In Training Programs

• Are there fatigue management strategies you would like to experiment with at the individual, team or department level?
Top Ten Tips for Coping with Call One Night at a Time

Take time to eat, drink plenty of fluids during the day, and use the bathroom
Go outside for a few moments
Call significant others at least once during night call
Focus on the positive
Remember there are choices, even the choice of career path
Seek sanctuary when necessary
Use sleep discipline on call and post-call
Use extra caution when driving home post-call, and arrive alive
Use sleep hygiene strategies for the long-term goal of surviving residency

Strategies for on-call

Pay off sleep debt before on-call
Drink more water
Take the stairs
Experiment with breaks
Use Caffeine strategically
Group your tasks
Lie down/sleep when you can
Stay Engaged
Delegate/share decision making
Prioritize
Eat a Cliff bar
Use a to do list with checkboxes
Consciously relax
Wear good shoes
Avoid dark or warm rooms
Complete most difficult tasks early

Be kind/ supportive/affable
Get outside for 5 minutes
Give yourself more time to do difficult tasks
Remember what’s most important
Check-in with someone close to you
Take time for recovery sleep
Let someone know if you are severely fatigued
Know your stop point
Consult/ask for help

http://efficientmd.blogspot.ca/2008/09/100-tips-for-being-on-call-in-hospital.html
Office of Resident Wellness Resources

Office of Resident Wellness
Postgraduate Medical Education 2014-2015

http://www.pgme.utoronto.ca/content/resident-wellness
Thank You / Questions

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