

Risk Factors for Workplace Fatigue- Sleep Deficiency

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The contents and key points of the accompanying video clip are outlined in this summary.

Sleep deficiency is one of many factors that contribute to workplace fatigue (Lockley et al, 2007). Sleep deficiency refers to a “deficit in the quantity or quality of sleep obtained versus the amount needed for optimal health” (National Institutes of Health (NIH), 2011). Sleep deficiency can result from experiencing sleep deprivation, sleeping during the wrong time of day (out of sync with biological clock), not sleeping well (such that one does not experience restorative stages of sleep), or having a sleep disorder that prevents getting good sleep or getting enough sleep (such as sleep apnea) (National Heart, Lung, and Blood Institute (NHLBI), 2012).

Sleep deficiency has been linked to various physical and mental health problems, including; difficulty learning and concentrating, regulating and reading emotions, impaired decision making/judgement, and increased risk for depression, suicide, heart disease, kidney disease, high blood pressure, diabetes, stroke, and obesity (NHLBI, 2012). Sleep deficiency is common among health care workers and contributes to decreased productivity and increased workplace errors and increased accidents (Lockley et al, 2007; NHLBI, 2012). As such it is a significant health and safety issue for occupational therapists and their patients/clients.

Research demonstrates that sleep deprivation can result in functional impairments **equivalent to a blood alcohol level of 0.1%** (Williamson & Feyer, 2000). Healthcare workers suffering fatigue and sleep deprivation have lowered productivity and increased errors resulting in harm to themselves and to patients (Lockley et al, 2007). Work Safe Alberta recommends adults get 7-9 consecutive hours of sleep every 24 hour period (2004). Less than 5 hours of sleep contributes to sleep deficiency and markedly impairs an individual's functional capacity (Work Safe Alberta, 2004).

Healthcare providers have a responsibility to be familiar with the signs of insufficient sleep and to report instances in order to maintain safe and professional practice (Schell, 2014). Symptoms of sleep deficiency include: not feeling refreshed or alert upon waking, feeling tired throughout the day, feeling like you may fall asleep when engaged in less active things during the day (e.g, sitting and reading) (NHLBI, 2012).

Sleep is a key occupation that greatly impacts other occupational performance areas, and is recognized as such by the occupational therapy profession (Occupational Therapy Practice Framework, 2014). Being informed about the importance of sleep, causes and consequences of insufficient sleep and good sleep hygiene can help manage sleep deficiency. The following resources are offered to supplement the accompanying video's overview of sleep deficiency and to further inform occupational therapists' understanding of sleep deficiency and workplace fatigue.

Resources

To learn more about sleep and its importance visit:

- * Canadian Sleep Society: <http://css-scs.ca/>
- * National Sleep Foundation: <http://sleepfoundation.org/>
- * National Institutes of Health: <http://www.ninds.nih.gov/education/brochures/brain-basics-sleep-6-10-08-pdf-508.pdf>

To learn more about sleep guidelines:

- * Download National Sleep Foundation diagram: <http://sleepfoundation.org/how-sleep-works/how-much-sleep-do-we-really-need>
- * Download Work Safe Alberta's Work Safe Bulletin on Fatigue for more information on Sleep Guidelines:
 - * <http://work.alberta.ca/documents/WHS-PUB-ERG015.pdf>

To learn more about your own sleep performance:

- * Free Sleep Diary: <http://sleepfoundation.org/content/nsf-official-sleep-diary>
- * Sleep tracker Apps:
 - * E.g., Sleepbot
- * Online sleep deficiency quiz:
 - * <http://sleepfoundation.org/quiz/national-sleep-foundation-sleepiness-test>

For sleep hygiene advice and strategies:

- * Downloadable Sleep Hygiene Brochure: http://css-scs.ca/images/brochures/normal_sleep.pdf
- * Computer blue spectrum light filtering software (to support pre-bedtime melatonin production) : <https://justgetflux.com/>
- * Many other apps and programs available for both Apple and Android devices

References

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