

Sleep Deprivation in Healthcare Professionals and Medical Errors

Dr. Carlo Lazzari

Department of Medicine, International Centre for Healthcare and Medical Education, United Kingdom

***Correspondence to:** Dr. Carlo Lazzari, Department of Medicine, International Centre for Healthcare and Medical Education, United Kingdom.

Copyright

© 2018 Dr. Carlo Lazzari. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Received: 18 April 2018

Published: 03 May 2018

Keywords: *Insomnia; Sleep Deprivation; Mythology; Unintentional Deviation; Emotional Impact*

The publication of a new scientific journal is always an exciting experience. Several topics of international impact will be discussed, and scientists from all countries in the world will illustrate their research findings and their conclusions to undergo the scrutiny of the international community. At the same time, a research journal aims to bring to public knowledge topics, events, and research that can appeal any branch of medicine. With the view of selecting a research topic which has equal impact on medical and clinical research, the actual editorial on medical errors caused by sleep deprivation in medical professionals appeared to have both emotional impact and scientific relevance for the healthcare professions. Modern-day practice in the health professionals requires different skills as well as awareness of strengths and limitations in the own clinical practice. Insomnia, sleep disturbance and deprivation in healthcare professionals can lead to medical errors and thus impact on the quality of care and patient safety. Sleep has always been considered an essential part of human nature to the point that the ancient Greeks believed in the god of sleep or *Hypnos* and the therapeutic potential of sleep; consequently, the power of *Hypnos* was that of eradicating all sufferings [1]. Furthermore, *Hypnos* has *Thanatos* as a brother, the god of Death [2]. It is easy to understand why sleep was so crucial for the old mythology and medicine to the point that sinister events were predicted when altered sleep affected ordinary people. These findings have remained true up to today to the point that healthcare professionals, nurses, and doctors who lack proper sleep due to their rotations and shifts, not only experience negative effects on their well-being, concentration, skills, and emotions but can seriously jeopardise patients' safety and easily cause medical errors [3]. The Merriam-Webster Dictionary Online defines insomnia as 'prolonged and usually abnormal inability to get enough sleep' [4].

Always Merriam-Webster Dictionary Online defines ‘error as an act involving an unintentional deviation from truth or accuracy or a code of behavior’ [5]. Hence, sleep deprivation and insomnia in healthcare professionals can equally affect their skills and emotions. Research by Kalmbach *et al.* (2017) found that interns undergoing prolonged sleep deprivation and working 70 or more weekly hours were at higher risk of depression [6]. Another research by Mustahsan *et al.* (2013) in sleep-deprived house officers and postgraduate trainees spending 80-90 hours weekly in hospital, found that medical errors were reported in 20% of cases [7]. Same findings of medical incidents are described by Kaneita & Ohida (2011) in doctors working long shifts with frequent on-calls and night shifts [8]. These studies illustrate the alarming impact that sleep deprivation can have on healthcare professionals. In an article appeared in 2016 in *The Guardian*, it is stated that doctors of the National Health Service in the United Kingdom are so sleep deprived that they can be a threat to patients’ safety [9]. As previously mentioned, sleep deprivation in healthcare professionals also impacts on their emotions and their therapeutic relationships with clients. In fact, the research found that sleep deprivation reduces empathy in healthcare professionals [10]. The writer found that medical errors by sleep deprivation can be staged as follows [11]. For light sleep deprivation at the beginning, there are reduced concentration and minimal mistakes in cognitive and manual skills. If sleep deprivation persists, we start to find mild cognitive impairments with serious omissions, generalizations, and altered judgment in differences and similarities; there are also minor incidents in the use of fine motor skills and increased irritability and anxiety. In the most severe cases with prolonged sleep deprivation, we start to observe gross cognitive impairment, loss of concentration and reduced fine movement coordination. In this case, healthcare workers are at risk of severe professional incidents; they can start to omit necessary skills in the own routine, and can cause severe errors. We also observe changes in mood, irritability, reduced interprofessional skills, and decreased tolerance to criticism and feedback from colleagues or patients. In conclusion, ensuring to oneself proper sleep is a professional obligation for all healthcare workers. However, problems related to reduced sleep in healthcare professions might not be readily solvable as healthcare management might ask to their employees to perform beyond their physiological limits. Consequently, the Accreditation Council for Graduate Medical Education suggests that healthcare professionals need to learn how to identify signs of sleep deprivation and how to apply strategies to neutralize and avoid its harmful consequences on patient care and the own professional education [12].

Bibliography

1. Osborn DK. (2018). *Sleep and wakefulness*. Greek Medicine.net.
2. Greek Myths and Greek Mythology. (2018). *Hypnos, the god of sleep*.
3. Lazzari, C., Shoka, A., Papanna, B. & Mousalidis, G. (2018). Sleep deprivation in healthcare professionals and medical errors: How to recognize them? *Sleep Med Dis Int J*, 2(1).
4. Merriam-Webster Dictionary Online. (2018). *Insomnia*.
5. Merriam-Webster Dictionary Online. (2018). *Error*.

6. Kalmbach, D. A., Arnedt, J. T., Song, P. X. & Guille, C. (2017). Sleep disturbance and short sleep as risk factors for depression and perceived medical errors in first-year residents. *Sleep*, 40(3), 1-8.
7. Mustahsan, S. M., Ali, S. M., Khalid, F., Ali, A. A., Ahmed, H., *et al.* (2013). Sleep deprivation and its consequences on house officers and postgraduate trainees. *J Pak Med Assoc*, 63(4), 540-543.
8. Kaneita, Y. & Ohida, T. (2011). Association of current work and sleep situations with excessive daytime sleepiness and medical incidents among Japanese physicians. *J Clin Sleep Med*, 7(5), 512-522.
9. Campbell, D. (2016). Junior doctors' sleep deprivation poses a threat to patients, says GMC. *The Guardian*.
10. Guadagni, V., Burles, F., Valera, S., Hardwicke-Brown, E., Ferrara, M., Campbell, T. & Iaria, G. (2017). The relationship between quality of sleep and emotional empathy. *J Psychophysiol*, 31(4), 158-166.
11. Lazzari, C., Shoka, A., Papanna, B. & Rabottini, M. (2018). Insomnia induced brief manic-psychotic episodes. *Sleep Med Dis Int J*, 2(2), 27-30.
12. Olson, E. J., Drage, L. A. & Auger, R. R. (2009). Sleep deprivation, physician performance, and patient safety. *Chest*, 136(5), 1389-1396.