Decision Fatigue and Neurosurgeons' Clinical Decision Making: An Enemy in the Shadow

Luis Rafael Moscote-Salazar[1] William A. Florez-Perdomo[1] Alfonso I. Pacheco-Hernandez[1] Tariq Janjua[2]

[1] Department of Critical Care Medicine, Physician Regional Medical Center, Naples, Florida, United States
[2] Department of Research, Colombian Clinical Research Group in Neurocritical Care, Bogota, Colombia

Address for correspondence Luis Rafael Moscote-Salazar, MD, Research deparment, Colombian Clinical Research Group in Neurocritical Care, Bogota, Colombia (e-mail: rafaelmoscote21@gmail.com).

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Decision fatigue is a recognized phenomenon in healthcare psychology. Prolonged activities can lead to stress and fatigue, a familiar term in neurocognition. This is called decision fatigue; it is related to the ability to make the best decisions that decline with the course of the day. There are three key attributes to be included in this process; behavioral, cognitive, and physiological.[1] The management of the neurosurgical patient is a complex process. Multiple fields of medicine have shown that there is this decision fatigue due to multiple complex processes in place to practice medicine. As the US president correctly said, "… I am trying to pare down decisions. I don't want to make decisions about what I am eating or wearing. Because I have too many other decisions to make. You need to focus your decision-making energy…".[2] The pandemic of COVID-19 has shown that this enemy is real and bedside intensive care nurses were the most impacted.[3]

The practice of surgery is also known to have decision fatigue. A patient who is seen at the end of the working hours of orthopedic surgery has 33% less likely to be scheduled for surgery as compared with those seen in the early part of work hours.[4] Neurosurgeons are specialists with a dedication to prolonged operating time, perioperative care, and a complex decision tree. The present environment of the digital age with electronic record-keeping and value of work judged with monetary substitution add to this complex field. Decision-making in neurosurgery is a crucial stage in the daily activities of the neurosurgeon. The impact of the quality of decision making in critical and non-critical neurosurgical patients has been explored to less extent. The erroneous decision making can lead to unfavorable results and legal consequences.

Furthermore, in countries where the number of neurosurgeons is less than recommended by the World Health Organization (WHO), the situation is critical to this enemy in the shadow. This constitutes an unexplored gray area. It is time to expose this enemy and make it a reality. The aviation industry has worked hard to prevent decision fatigue among the flight crew. "Fatigue" is defined by the international civil aviation organization (ICAO) as "a physiological state of reduced mental or physical performance capability resulting from sleep loss or extended wakefulness, circadian phase, or workload (mental and/or physical activity) that can impair a crewmember's alertness and ability to safely operate an aircraft or perform safety related duties."[5] To counteract this fatigue, ICAO has a rigid process in place, which is called the fatigue risk management system (FRMS).[6] On the same lines, further research should focus on steps to recognize this fatigue, what elements lead to fatigue, how to prevent this, and when to increase awareness among healthcare systems. Protection of practice of the neurosurgical field is extremely important for the human race and not enough is done at this stage.

Conflict of Interest
None declared.

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