FREE PAPER PRESENTATION (ORAL)

Suboptimal Sleep Among E-athletes: Do E-athletes Need More Game Play to Win?

Khairil Idham Ismail^{1,2}, Munawwar Helmi³, Muhammad Kashani Mohd Kamil⁴, Zul Azlin Razali⁵

¹Ministry of Health Malaysia; ²Department of Community Health, Faculty of Medicine, Universiti Kebangsaan Malaysia Medical Centre; ³National Sports Institute of Malaysia (NSI); ⁴Sports Medicine Unit, University of Malaya (UM); ⁵Universiti Sains Islam Malaysia (USIM)

ABSTRACT

Introduction: Empirical evidences are escalating to suggest that E-athletes are at threat of suboptimal sleep due to its relation to video gaming. Furthermore, digital gaming is also included in the 11th Revision of the International Classification of Diseases (ICD-11) as gaming disorder. Disruption stages of sleep and difficulty in sleeping are shown to have associated with video gaming due to reduce quality and quantity of sleep. Currently, the paucity of grounded literature limits the knowledge of suboptimal sleep threat and their risk factors for performance among Eathletes.

Objective: Our aim is to provide opinion and to illustrate fundamental causes of suboptimal sleep among E-athletes and its consequences.

Methods: Review of literature in relevance to sleep and E-sports were carried out in broader discipline of sleep and sport medicine. Bowtie diagram tool was used to illustrate the cause-effect-consequences relationship.

Results: The potential causes for suboptimal sleep among E-athletes include evening use of light emitting device, pre-existing health status, incessant travel, overtraining and stimulant abuse. The potential consequences include increase in cardiovascular strain, impaired cognitive function, unhealthy behaviours, mental health like gaming disorder and increased risk of non-communicable disease.

Conclusion: The relationship of suboptimal sleep and its consequences such as impaired cognitive function and deleterious effect which eventually affected performance are well described in sleep medicine discipline. In view that E-sports performance demands high cognitive function abilities, we hypothesize that performance of E-athletes could also be affected due to suboptimal sleep obtained. We argue Eathletes require more time on training for better performance. In contrast, proper mentoring, guided and goal-directed for specific skills and tactics are essential for determining Eathletes performance to win. Our review could assist stakeholders in E-sports arena strategically managing sleep among E-athletes for better performance to win. Nonetheless, future research should be carried out to establish the causation.

Keywords: Sleep, Suboptimal Sleep, Esports, Eathletes, Performance