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SLEEP IN PARALYMPIC ATHLETES AND ITS RELATIONSHIP WITH INJURIES AND ILLNESSES

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INTRODUCTION:

The popularity of Paralympic sports has grown exponentially in the past years. With more athletes competing at high levels, injury rates have become a worrying issue (1). A recent systematic review warned about the high prevalence and incidence of injuries found in para athletes (2) and achieving optimal recovery in the training process is important in improving physical performance (3). To evaluate sleep characteristics of Paralympic athletes and investigate the relationship of sleep with health problems, including injuries and illnesses, in Paralympic athletes.

METHODS:

This was a transversal study with 20 Paralympic athletes who had competed at the highest level of Brazilian competitions in the following modalities: athletics, swimming, and weightlifting. A specific database of health problems recording was collected in conjunction with the medical team for two weeks through the Brazilian version of the Oslo Sports Trauma Research Center questionnaire (OSTRC-BR) concurrently with the evaluation of chronotype, sleep quality, sleep complaints and sleep behavior. The sleep-wake pattern was monitored using a wrist activity monitor in conjunction with self-report sleep diaries for 15 consecutive days.

RESULTS:

Sleep latency ($r=-0.46$; $p=0.04$) and duration of naps ($r=-0.46$; $p=0.04$) were associated with occurrence of health problems; insomnia ($r=-0.46$; $p=0.04$), frequency of insomnia, Pittsburgh Sleep Quality Index score ($r=0.45$; $p=0.04$), and frequency of awakenings at night ($r=0.58$; $p=0.01$) were associated with severity of health problems on week 2; frequency of movements during sleep was associated with OSTRC-BR cumulative score ($r=0.58$; $p=0.00$); and frequency of nightmares was associated with OSTRC mean score. A high prevalence of poor sleep quality and poor sleep behavior was also found.

CONCLUSION:

Paralympic athletes tend to report poor sleep quality and to have a poor sleep behavior. Some sleep complaints such as insomnia symptoms, awakenings at night, movements during sleep and poor sleep quality were associated with the occurrence and severity of health problems. We recommend practitioners consider the sleep characteristics of athletes in their injury prevention planning for Paralympic athletes.

1) Webborn N and Emery C. *PM&R*. 2014;6(8):S18–22. 2) Pinheiro LSP, et al. *Br J Sports Med*. 2021;55(23):1357–65. 3) Silva A, et al. *IJSP*. 2019;15(5):671-676.

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