The effect of sleep deprivation for 24 hours on working memory and burnout of athletes

Poster Presentation

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Abstract
Introduction: Sleep is a gentle cycle during the day and night and a complex biological pattern. Sleep is essential for the physical and mental well-being of ordinary people and athletes. The aim of this study was to determine the effect of 24 hours of sleep deprivation on working memory and burnout of athletes in Shahid Beheshti University. Different reasons like change in chronological zone, anxiety, early arousal, athlete's travel can cause sleep disturbance before a sport event. Sleep deprivation has negative effects on individual's cognitive components and since paying attention is one of the requirements of excellent performance and its importance is shown when in a race or any sport competitions, even distracting for a moment can change the outcome.
Methods: In the present study, 32 students of Shahid Beheshti University were studied voluntarily and using random method in two groups of control and experimental. The experimental group stayed awake for 24 hours and the control group followed their normal schedule. Data were collected by Radac and Smith Athletes Analysis Questionnaire (2001) and tested using Daniman and Carpenter (1980) working memory capacity measurement. The collected data were analyzed by univariate covariance statistical methods.
Results: The results generally showed that the mean score of burnout and working memory in a group of athletes who were awake for 24 hours was different from the group who were deprived of sleep for 24 hours. The results also showed that the score of burnout and working memory in the experimental group was lower than the control group.
Conclusion: Sleep deprivation affects athletes' burnout and working memory, and reduces athletes' psychological and motor performance, and ultimately reduces athletes' athletic performance during competitions with competitive trends

Keywords
Sleep deprivation; working memory; burnout; Athletes

Reference

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