Sleep deprivation and exercise

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Editorial

There are many studies have shown benefits of exercise on various aspects caused by sleep deprivation and insomnia. The most positive effects are related to cognitive deficits followed by sleep disorders. The positive effects of exercise on sleep deprivation are well shown by many findings. Regarding the lack of publications about this issue in the journal, it is better to consider this issue in the journal volumes and invite the authors to release their current findings about exercise and sleep deprivation even through a special issue in this journal. According to the studies, sleep deprivation causes many disorders such as increasing oxidative stress enzymes\(^1\) learning and spatial memory,\(^2,3\) cognitive function and synaptic plasticity,\(^4\) learning, stress and anxiety.\(^5\) Furthermore, the positive influence of exercise in different type and time have been shown frequently such as increasing in hippocampus plasticity via AKT, CREB and BDNF signaling,\(^6\) spatial learning and memory\(^3,7\) hippocampus and striated brain-derived neurotrophic factor levels.\(^8\)

Sleep deprivation can cause negative physical, psychological and cognitive effects, and moderate and regular exercise can be applied to deal with these disorders and can modify cognitive impairments induced by sleep deprivation and stress and improve learning and memory.

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Conflict of interest

The authors declared that there are no conflicts of interest.

References