Effect of High Intensity Circuit Training on Central Fatigue and Cognitive Function among Recreational Athletes: An Annotated Bibliographic Review

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Abstract- [Purpose] Averting fatigue is an area of discussion nowadays not only for professional athletes but also for recreational athletes. It requires comprehension about understanding of fatigue, its aetiology and mechanisms. (Mostafa, 2014). Central fatigue stipulates decrease in voluntary activation during exercise. Circuit training is a type of training evolved by Morgan and Anderson in 1953. This training involves “A Circuit” including 9-12 exercises (aerobic exercises, resistance exercise etc) at nine moderate paces. It includes several circuits with short breaks between them. Every recreational athlete encounters fatigue in day-to-day life (Bart, 2010). The type, duration and intensity of exercise are several factors which are responsible for peripheral and central fatigue. Total of more than 20 full text articles were included in this review. A literature search was performed using Google Scholar, PubMed and Cochrane databases. A total of more than 60 articles showed up on PubMed and 15 on Cochrane with the term “recreational athletes”. Exercise interventions other than high resistance circuit training were excluded. The articles were checked thoroughly and only full text articles were included for this review. These studies were reviewed. This bibliographic study conclude that the circuit and high intensity resistance training has improved various parameters such as resistance to fatigue and cognitive function among recreational athletes. High Intensity Circuit Training has positive effect on cognitive function and resistance to fatigue among recreational athletes.

Keywords: Circuit training, High intensity training, Resistance exercise, Aerobic capacity.