INTRODUCTION: Exposure to high altitude or hypoxia may elicit negative cognitive performance and mood state in many individuals. This may place the individuals at undue risk. Moderate intensity exercise may improve psychological and mood state at normoxia but little is known about its effect in hypoxia. PURPOSE: The purpose of this study was to quantify the effects of two exercise intensities on cognitive performance and mood state in normobaric hypoxia. METHOD: 19 young, healthy men completed the ANAM versions of the Go/No-Go task and Running Memory Continuous Performance Task (RMCPT) during baseline (21% O₂) as well as during rest and cycle ergometer workloads that elicited 40 and 60% of adjusted VO₂max in normobaric hypoxia (12.5% O₂). RESULTS: During exercise at 40% and 60% of adjusted VO₂max improved throughput score in RMCPT (p=0.023, p=0.006, respectively) and total mood disturbance (TMD) (p=0.009) compared to rest in hypoxia (p=0.015). In addition there was improved TMD during recovery compare to rest in hypoxia. There is no significant difference in throughput score of RMCPT and TMD between two exercise intensities.
**CONCLUSION:** The current study demonstrated that at moderate exercise (i.e., 40-60% adjusted VO₂max) attenuated the adverse effects of hypoxia on cognitive performance and mood. This finding may be beneficial for individuals to reduce the risk of impaired cognitive function and mood. Further studies are needed to replicate this current finding, and to clarify the possible mechanisms associated with the potential benefits of exercise on mood state in normobaric hypoxia.