Effects of Manipulating Rest Periods Within a Lower-Body Resistance Training Program
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PURPOSE: To investigate physiological and cognitive changes following a resistance training protocol.

METHODS: Eight healthy men volunteered to participate in a 6-week protocol consisting of 3 sets of 5 repetitions at 85% of 1-repetition maximum for the squat and deadlift. The two groups were 90-seconds (n= 5) and 3-minutes (n= 3) rest.

RESULTS: Analysis of variance (ANOVA) revealed a main effect of time for the squat ($p = 0.026$), and main effect of group for vertical jump ($p = 0.041$). The 3-minute group increased squat performance ($p = 0.020$), while the 90-second group improved vertical jump ($p = 0.031$). Group by time interactions were observed for Interference ($p = 0.048$), Word-Color ($p = 0.050$), and TMD ($p = 0.004$). Despite the trending increase of executive function in the 3-minute group, a worsened mood post-intervention was observed ($p = 0.008$).

CONCLUSION: Minimal rest improved power within the 90-second group while the 3-minute group significantly improved lower body strength. Cognitive function only appeared to improve in the 3-minute rest group. Despite no increase in strength for the 90-second group, it appears minimal rest is advantageous for athletes looking to enhance power performance, although further research is necessary.