Rest Interval Length Does Not Affect Total Exercise Volume during Lower Body Resistance Training

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Rest intervals between sets of resistance training appear to be an important variable that can directly affect training volume. **PURPOSE:** to investigate the influence of different rest intervals (1, 3, and 5 min.) on lower body resistance training in NCAA Division III collegiate male basketball players. **METHODS:** Ten male basketball players (19.4 ± 1.3 years, 83.3 ± 10.7 kg, 189.1 ± 7.8 cm) were randomized to a rest interval of 1, 3, or 5 minutes. Repetitions to failure was assessed for three sets of the leg press at 85% 1RM. Heart rate (HR) was recorded at rest, RPE was recorded every four repetitions, and HR and RPE were recorded immediately post-exercise, and halfway through each rest interval. **RESULTS:** No significant differences were observed in volume between rest intervals or in RPE between rest intervals ($p<0.05$). Significant differences in HR were noted between rest intervals ($p<0.05$). Differences in HR were observed between 1-minute (131.900 ± 22.8 beats/min^{-1}) and 5-minute rest intervals (120.452 ± 18.3 beats/min^{-1}). Finally, we found that subjects were able to complete significantly more repetitions to failure during the first set of each rest interval ($p<0.05$; Set 1: 12.43 ± 1.5 reps; Set 2: 10.43 ± 1.5 reps; Set 3: 9.500 ± 1.1 reps). **CONCLUSION:** These results indicate that rest interval length does not affect exercise volume, which may have direct application for coaches and strength and conditioning specialists prescribing rest intervals between sets of collegiate basketball players.