

一過性のストレンクス・エクササイズが感情に与える影響
- サイクリングに伴う経時変化との比較 -

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**Effects of Acute Strength Exercise on Affective Responses :
Comparison of Change between Strength Exercise Session and Cycling Session**

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Abstract

Despite the burgeoning recognition of the physical health benefits associated with strength-exercise, research addressing the psychological beneficence of exercise has primarily focused on aerobic exercise. At the present, furthermore, results from investigations of psychological responses following acute strength-exercise remain equivocal. This study examined the effect of moderate acute strength-exercise on psychological states. And then, this study compared the effect of strength-exercise with cycling. Sixteen subjects were recruited and performed strength-exercise condition and cycling condition. In both exercise conditions, exercise intensities were fixed at RPE13. Subjects rated two exercise-specific scales: Waseda Affect Scale of Exercise and Durable Activity (WASEDA; Arai et al., 2003) and Feeling Scale (FS; Rejeski, 1985) before, during, and after exercise. WASEDA has three sub-scales measuring 1) Negative Affect, 2) Positive Engagement, and 3) Tranquility. FS was used to measure their pleasantness. Strength-exercise condition consisted four kinds of exercise: bench-press, shoulder-press, squat, and calf-raise. All strength-exercises were performed with hydraulic resistance machine. On the other hand, subjects in cycling condition performed moderate 20 minutes cycling with cycle ergometer. Analysis showed that both strength-exercise and cycling condition significantly improved Negative Affect and pleasantness. It seems reasonable to conclude that not only cycling but also strength-exercise could result in similar psychological benefits.

Key words: strength-exercise, cycling, RPE13, psychological state