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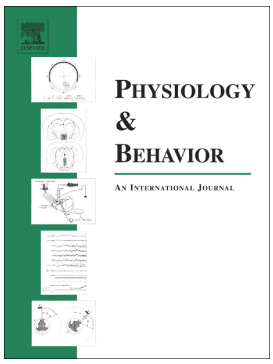

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Effects of an Acute Bout of Physical Exercise on Reward Functioning in Healthy Adults

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Abstract

Exercise has been proposed as a treatment for several psychiatric disorders. Exercise may act in part through beneficial effects on reward functioning, as it alters neurotransmitter levels in reward-related circuits. However, there has been little investigation of the effect of exercise on reward functions in humans. We hypothesized an acute bout of exercise would increase motivation for and pleasurable responses to rewards in healthy humans. In addition, we examined possible moderators of exercise's effects, including demographics, fitness and previous exercise experience. Thirty-five participants completed exercise and sedentary control sessions in randomized, counterbalanced order on separate days. Immediately after each activity, participants completed measures of motivation for

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