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Behaviour, Performance and Psychosocial Issues in Space (1)

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IMPACT OF 60 DAYS -6 DEGREE HEAD-DOWN BED REST ON SUBJECTS' COGNITIVE ABILITY

Abstract

A 60 days -6 degree Head-Down Bed Rest Experiment, which is an effective model to mimic the spaceflight environment, was designed to evaluate subjects' cognitive ability change.21 healthy male adults took part in the experiment. The cognitive test battery contained reaction time test, attention allocation, attention span, mental rotation, digit searching and Sternberg dual task. These test were carried out once per week during 60d head-down bed rest. Results showed that most of cognitive abilities were affected; Cognitive ability change had two distinguishable stages: increasing stage related to practice effect and the decreasing stage.

Keywords: Head-Down Bed Rest, cognitive ability, spaceflight.