

Challenges of Life Support - Medical Support for Manned Space Exploration (9)
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IS THERE A CRITICAL PERIOD OF ADAPTATION FOR EXPLORERS? – THE THIRD-QUARTER PHENOMENON IN SPACE AND ANALOG ENVIRONMENTS

Abstract

Psychosocial adaptation is crucial for the success of space mission as well as the safety and well-being of astronauts. Exposure to such isolated and confined environments (ICE) as the space stations has been associated with significant psychological and behavioral changes. Notably, people have been found to experience an increase in negative affect and interpersonal problems just past the midpoint of the mission, known as the “third quarter phenomenon”. In this paper, evidence for and against the existence of this phenomenon from different types of ICE is presented. Factors that might contribute to this phenomenon and coping strategies for individual astronauts as well as mission teams are discussed. We conclude that as long duration stay in space has become reality or major goal for increasingly more nations, not only psychological well-being influences safety and mission success, but living quality matters in its own right in space as much as on earth.