

HUMAN SPACEFLIGHT SYMPOSIUM (B3)
Poster Session (P)

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LIFE IN A TIN CAN: COGNITIVE TRAINING FOR PSYCHOLOGICAL RESILIENCE TO
INTERPLANETARY SPACEFLIGHT.**Abstract**

It is well known that the psychological management of long term space flight is a major factor affecting overall mission success. Astronauts deal with psychological, interpersonal, intercultural, physical and environmental stressors throughout their time on orbit and these factors become more important to missions success as the duration of flight increases. The last decade has seen an increasing interest in the applicability of meditative techniques such as mindfulness training to managing high stress lifestyles in modern society. These techniques have been used for millennia to promote psychological health and have now been shown to affect sympathetic nervous system activation, electroencephalogram output, metabolic rate and respiratory rate. Characterisation of these techniques by modern medicine has shown them to be associated with significant improvements to perception of stress, self-compassion and the management of interpersonal issues. This talk will explore a series of potential techniques and their applicability to long term space flight as prophylaxis against the extreme stressors which will be experienced in a manned interplanetary mission. Further, these techniques will be characterised in the context of combating the significant issue of “deorbit syndrome” and the difficulties astronauts face in readapting post flight to life on Earth.