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Challenges of Life Support/Medical Support for Human Missions (8) Challenges of Life Support/Medical Support for Human Missions (2) (2)

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TRAINING PEOPLE HOW TO ACT DELIBERATELY IN EACH MOMENT PROMOTES LONG - DURATION MISSION SUCCESS: USING CONTEXTUAL BEHAVIOURAL SCIENCE TO ENHANCE GROUP COHESION, WELL-BEING AND PRODUCTIVITY

Abstract

BACKGROUND: Applied psychology in space exploration is becoming vital as humans are preparing to take the next leap to explore space and establish colonies on other planets and moons. These endeavours will require significantly longer missions and so it is crucial for astronauts to perform outstandingly, whilst maintaining their psychological well-being and performance in situations that have not yet been fully examined. Empirically based applied psychology can help people to thrive, experience meaning, and succeed in long duration manned missions; that is to maintain well-being, and increase the productivity and cohesion among crew members, the mission control, management, and the multidisciplinary science teams. OVERVIEW: Contextual behavioural science (CBS) shows that long-term success depends on people acting with their focus on the present moment so that they can better accomplish their goals. Human action can only occur in one moment in time: the present one. By repeatedly taking present-focused actions, people are better able to identify ways to anticipate and solve contextual problems. Such success also results from enhanced self-efficacy, and a greater ability to understand, engage with, and communicate amongst and between groups and its' members. During this active state of mind an essential quality emerges: a meaning. Meaning is crucial for many reasons; besides it is naturally reinforcing for the behaviour, it allows people to a greater understanding in what they are doing; and a better ability to communicate honestly and effectively. Meaningful experience of the best chosen action in that context leads to more proactive and supportive actions amongst a group of people who increasingly function as a focused and self-supportive team and is able to engage with difficulties in meaningfully serving higher order goals, the mission. DISCUSSION: CBS underpinned by over two decades of empirical research, is well placed to improve the psychological and behavioural skills needed for demanding and long duration missions; research clearly shows that CBS based interventions, for example acceptance and commitment training, mindfulness, and ALIVE (Actively Living-as-an Individual-who-is Vitally Existing-for-meaning-and-understanding) can improve mental health, productivity, prosocial behaviour and innovation by increasing people's psychological flexibility: people's ability to take action to pursue what matters for them, even when they experience challenging thoughts and feelings. CBS's practice and effectiveness are increasingly being seen in clinical, educational, financial, media, premiere sport and public sectors to enhance human benefits. It is for these reasons, amongst others, that we believe that CBS based interventions could benefit astronautics in its unique and continual environmental and biopsychosocial challenges.