

027

CREW WELLNESS IN SHORT DURATION MARS ANALOGUE MISSION IN DESERT – A PILOT STUDY

BIEN-ÊTRE D'ÉQUIPAGE DANS MISSION D'ANALOGUE DE MARS DE DURÉE COURTE DANS DÉSERT - UNE ÉTUDE PILOTE

A Narayanamoorthi

*Untethered Space, LLC; Royal Air Force of Oman
ashokmmc@gmail.com*

Introduction: Habitable Mars environment is usually confined to limited space and close quarter interaction with the fellow astronauts. This has several implications on wellbeing of the astronauts. Crew assessment of mental wellbeing during Mars Analog Mission at Mars Desert Research Station (MDRS) would be an important tool in knowing the effect of isolated, confined environment.

Methods: The Warwick-Edinburg Mental Well-being Scale (WEMWBS) was utilized. Five Scientist-Astronaut candidates of Crew 192 were assessed during their rotation in Mars Desert Research Station (MDRS), Utah during pre-simulation and at the end of the mission. Effective simulation period was 12 days. The survey included a 5 point Likert scale of 14 statements.

Result: Mean average of crew wellness of the entire team is significantly higher ($p < 0.05$) between pre-simulation and at end of the mission. Individual analysis shows significant difference ($p < 0.05$) in one member and entirely same in one member. Two members showed higher crew wellness at the end of mission but is not statistically significant ($P > 0.05$). One member had significantly higher ($P < 0.05$) with W-value of 0 and not with Z-value -2.66.

Conclusion: The short duration Mars analog mission at the MDRS had a significant positive impact for the team with improved crew wellness. There was a positive impact in the individual crew wellness analysis with one being significant and one showing no difference.