

Life Sciences as Related to Space (F)

Psychological Issues Related to Long Duration Space Missions (F53)

THE REDUCTION AND TREATMENT OF SERIOUS MENTAL ILLNESS DURING LONG DURATION SPACE MISSION.

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It is well known in the history of terrestrial naval expeditions that members of long expeditions could and did suffer from serious mental illnesses. Depression and even psychosis could afflict crew members, and in serious cases this sometimes resulted in violence directed towards others or themselves. There was little that the medical practitioners of the time could do to alleviate these illnesses. Modern psychiatry operates within a paradigm of the normalcy of the modern western standard of living. When we place humans outside these normal experiences, we place them in vulnerable positions. For the foreseeable future, spaceflight will continue to result in extremely physically, mentally and spiritually arduous expeditions. As we start our journey towards Mars and beyond, the time humans will be in the isolation of space, and subjected to these extraordinary stresses, will increase. The recent incident where an American astronaut had a mental collapse and was criminally charged is indicative of this real possibility. One solution could be to have more pre-screening but this only goes so far, especially when the rigorous training and the actual mission might cause psychological problems that were never present before hand. Eastern and Western philosophies and religious systems can provide a framework to draw upon to strengthen the mental and spiritual psyche of the astronauts on a long duration expedition. Meditative techniques and prayer techniques, if within the belief system of the astronaut, might serve to prevent or ameliorate the severity of a mental collapse should it occur during a space mission. Many of the American astronauts that went to the Moon reported having intense emotional and spiritual reactions based on the intensity of their experiences. For several of these men, the courses of their lives were changed. What astronauts will face by going back to the Moon and further a field to Mars, will be dangerous and extremely mentally taxing. At the least techniques of meditation and contemplation from religions could reduce and strengthen the individual psyche of expedition teams. What the authors recommend is psychological and spiritual support by teaching meditation techniques (based on prayer), relaxation and body regulative disciplines as part of any major expedition's pre-flight training schedule.