SPACE LIFE SCIENCES SYMPOSIUM (A1) Behaviour, Performance and Psychosocial Issues in Space (1)

Author: Dr. Jelena Brcic University of British Columbia, Canada

Dr. Peter Suedfeld University of British Columbia, Canada Dr. Phyllis J. Johnson University of British Columbia, Canada Dr. Vadim Gushin

Institute of Biomedical Problems (IBMP), Russian Academy of Sciences (RAS), Russian Federation

HUMOR AS A COPING STRATEGY IN SPACEFLIGHT

Abstract

Humor as a coping strategy in spaceflight Jelena Brcic, University of the Fraser Valley, 33844 King Rd, Abbotsford, B.C. Canada V2S 7M8. Tel.: +1 604-504-7441 local: 4733; jelena.brcic@ufv.ca

Purpose: Training for and engaging in spaceflight are inherently stressful experiences. Accordingly, space agencies are concerned with identifying stressors and ways of coping with them. Countermeasures generated by astronauts themselves are sometimes overlooked by researchers and medical administrators. The present research was directed toward one such frequently ignored spontaneous countermeasure. Methodology: The study is the first to use thematic content analysis (TCA) to assess astronauts' and cosmonauts' use of humor as a strategy for coping with stressors. The Humor Coping Scale (HCS: Brcic Huynh, 2008) assesses five categories of humor: Affiliative (enhancing interpersonal cohesiveness), Enhancing (expressing a humorous outlook on life), Aggressive (critical or sarcastic humor with possible negative impact on others), Self-defeating (humorous self-disparagement), and Problem-oriented (references to coping with specific stressful events). Retrospective narratives (memoirs, debriefs, interviews, etc.) of two samples were analyzed by HCS: Sample 1 was an international group of 46 active astronauts and cosmonauts; Sample 2 included 20 retired male cosmonauts. Results: Sample 1 results showed that astronauts in flights of 6 months or more employed Problem-oriented humor more than did those in shortduration flights. Astronauts from a national majority in their crew mentioned Aggressive humor more frequently than did national minorities; Russian cosmonauts mentioned less Affiliative humor than astronauts from NASA or other space agencies. For Sample 2, retired cosmonauts describing their active space career mentioned Positive humor and Problem-oriented humor the most: a significant quadratic trend was observed for both categories from before their first flight through their time in space to post-retirement from spaceflight. In addition, the use of Self-defeating humor increased significantly throughout their careers, with most mentions once they had retired. Additional results, implications, and comparisons of both samples will be further discussed. Conclusion: The specific factors of any space voyage, including duration and crew composition, affect the use of humor in crew interactions. These factors should be considered in crew training. For example, national majority crewmembers should be advised to be alert to their use of Aggressive humor toward "foreign" comrades. The growth of Self-defeating humor, especially after retirement from flight may indicate a reduced feeling of self-worth that may call for prevention by both space agencies and individual space fliers.