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THE ROLES OF NASA, ASTRONAUTS, AND ASTRONAUTS' FAMILIES IN LONG-DURATION
MISSIONS

Abstract

During the long-duration missions so far—Skylab, Mir, and the International Space Station—astronauts adjusted to the constraints of the space environment and created a daily life that mirrored some aspects of their life at home. NASA, the astronauts, and their families all had roles to play in creating this daily life that connected the astronauts to life on Earth. Systematically identifying the roles of each group may have implications for the psychological well-being of astronauts on future long-duration missions such as the exploration of Mars.

Johnson Space Center oral history interviews conducted with astronaut residents of Skylab, Mir, and the International Space Station were analyzed qualitatively to identify the roles of NASA, the astronaut and the astronaut's family during long-duration missions. While there may be other roles played by each of these groups, I will present only those aspects that are mentioned by the astronauts when describing their mission.

NASA's role includes 1) scheduling that mirrors the daily life of high-level professionals on Earth (important and worthwhile activities to perform; allowances made for settling-in time and for the crew's judgment about coordinating activities; allowing sufficient time for maintenance of the station and for personalized leisure activities, which are necessary to maintain productivity; and timing the arrival of supplies and new crew, which provide a break in routine and are anticipated); and 2) regular communication related to family, work, publicity, and education, all of which provide connections to Earth and reduce the perception of isolation. The astronaut's role includes personalizing leisure activities, establishing new traditions and adapting traditional activities such as hand-over ceremonies on ISS, turning the routines of eating, exercise, and experiments into fun, and celebrating special holidays, birthdays, and space events. The family's role includes regular communication and "care" packages that help keep the astronaut connected to daily life at home and the family connected to the astronaut's daily life in space.