NASA’s commitment to longer duration spaceflight includes astronauts returning to the Moon, as well as manned flights to Mars. This will require a deeper understanding of the impact extended missions pose for Astronauts. As the length of spaceflight increases, astronauts will experience longer periods away from their family and friends. In addition, the absence of earthly conveniences and daily routines will intensify the astronaut’s feelings of isolation. They will spend more time confined in the spacecraft and living in an environment fraught with potential danger. Consequently, predicting the effect that extended periods of isolation will have on psychological well-being becomes increasingly important. Evidence gathered in space analogs provide insight into psychological issues that might arise as a result of longer duration missions. Isolated, confined, and extreme (ICE) environments provide invaluable opportunities to experience unique stressors. The Antarctic is an ICE environment, and as such is an important analog for space flight. Antarctica is a land of extremes. It is physically isolated from the rest of the world and during winter months is further isolated since the weather precludes flights in or out. Furthermore, it is the coldest, windiest, and highest continent, thereby limiting outdoor excursions. Lastly, life in Antarctica is confined to relatively small living and working spaces similar to the physical constraints of an Astronaut’s space living and work environment.

The psychological effects of Antarctic expeditions have been well documented from anecdotal accounts recounted by the earliest explorers (e.g., Shackleton, 1914) to more recent scientifically rigorous research (e.g., Wood, et.al., 2005; Mocellin, 1989). Most recently, Palinkas and Suedfeld (2007) reviewed the psychological effects of expeditions to Antarctica. The authors concluded that psychological effects experienced by members of polar expeditions can be categorized as psychological symptoms, syndromes, psychiatric disorders, and salutogenic effects. The purpose of the current study is to use meta-analytic techniques to examine hypotheses based on the aforementioned categorizations developed by Palinkas and Suedfeld.

**HYPOTHESES**

Hypothesis 1: Psychological symptoms are positively associated with duration of residence in Antarctica, third quarter of Antarctic residence, and station latitude; psychological symptoms are negatively associated with size of crew, station accessibility, selection process, and prior experience.

Hypothesis 2: Syndromes are positively associated with duration of residence in Antarctica and station latitude and negatively associated with selection process.

Hypothesis 3: Psychiatric disorders are positively associated with duration of residence in Antarctica and station latitude. Psychiatric disorders are negatively associated with station accessibility, selection process, and prior experience.

Hypothesis 4: Salutogenic effects are positively associated with station accessibility and negatively associated with station latitude.

**DISCUSSION**

Preliminary results of the analyses will be presented to NASA’s Human Resource Program (HRP) in a formal presentation and lessons learned will be submitted to the HRP by the Behavioral Health and Performance element.