

SURVEY OF THE PSYCHOLOGICAL STATE OF THE WINTERING PARTY AT SYOWA STATION

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Introduction A wintering party in the Antarctic must live in a narrow and closed world for long periods, without changes in the members of the party. It is difficult for them to guard their privacy and to relieve stress. In such a special environment, what psychological state do they experience and how does this state change? The purpose of this survey is to investigate the psychological characteristics of the wintering party at Syowa Station. We compare our results with those of other studies.

Method Participants were 40 individuals, all members of the wintering party at Syowa Station during the 45th Japanese Antarctic Research Expedition, 2004-2005. The survey was conducted using the Baum test and four questionnaires: PANAS, COPE, SHC, and TSPS. This set of psychological tests was performed six or seven times throughout the wintering period.

Results 1. *Change in health condition*: Half of the subjects suffered from sleep problems in the polar night. After polar night started, the number of sufferers decreased, but the symptoms became serious. The number of sufferers from tiredness, sadness and depression increased in March and December. 2. *Change in coping with stress*: The frequency of using planning and humor dropped from March to June (midwinter). The frequency of using alcohol or drugs changed throughout all periods. 3. *Relation to personality*: Several variables of personality were related to mood, coping with stress, and health condition.

Discussion External factors, individual traits, and interpersonal relationships all have a strong influence on the psychological conditions of members of an Antarctic wintering party. The results of this research show how each member's psychological state had changed by the external factors. Moreover, we found that the feelings and ways of coping with stress varied depending on personality type. Grasping the members' psychological conditions is important for supporting their mental health. This investigation provided us valuable data for analyzing the most important requirements of dealing with the psychological challenges posed by this special close environment.