

Identification and Incidence of Mood Profile Clusters Among Sport Participants

Introduction

Researchers show persistent interest in mood responses among athletes and exercisers. Mood profiling has often focused on antecedents and behavioural consequences associated with the iceberg (Morgan, 1980) and inverse iceberg profiles (Terry, 1995). The iceberg profile (high vigour, low tension, depression, anger, fatigue, confusion) is associated with positive mental health and superior performance. The inverse iceberg profile (low vigour, high tension, depression, anger, fatigue, confusion) is associated with risk of psychopathology and used as a diagnostic criterion for overtraining syndrome. Four novel and theoretically meaningful mood profiles, termed the inverse Everest, shark fin, submerged, and surface profiles, were identified recently in the general population (Parsons-Smith, Terry, & Machin, 2017). In the present study, we investigated whether these six mood profiles are also evident in an athletic population.

Methods

A heterogeneous sample of adult sport participants ($N = 3,661$) completed the Brunel Mood Scale (BRUMS; Terry, Lane, Lane, & Keohane, 1999) via the *In The Mood* website. Seeded k-means cluster analysis was applied to the responses.

Results

The six hypothesised mood profile clusters were clearly identified. The incidence of each profile was iceberg (30%: $n = 1,113$), inverse iceberg (14%: $n = 503$), inverse Everest (5%: $n = 179$), shark fin (13%: $n = 465$), submerged (18%: $n = 645$), and surface (21%: $n = 756$). The inverse Everest profile was characterized by low vigour, high tension and fatigue, and very high depression, anger, and confusion; the shark fin profile by low tension, depression, anger, vigour, and confusion, combined with high fatigue; the surface profile by average scores on all mood dimensions; and the submerged profile by below average scores on all mood dimensions.

Discussion

Confirmation of the mood profile clusters in a sporting population has considerable relevance for applied practitioners. For example, the very high depression, anger and confusion scores inherent in the inverse Everest profile should enhance prediction of psychopathology risk and mental health disorders compared to the inverse iceberg profile, and signal a need for further assessment. The shark fin profile is associated with reduced adherence to safety behaviours in high-risk activities and may therefore predict injury risk in sport. Monitoring individualized mood response trends linked to high training demands or intense competition may prove especially fruitful. Relationships between the novel mood profiles and sport performance characteristics are uncertain but are currently under investigation.