Affective reactivity to real life stressors in sports students – the role of context and physical activity

Birte von Haaren-Mack¹, Carolin Bastemeyer¹ & Nils Wendel Heinrich² ¹German Sport University Cologne, Germany; ²Technische Universität Berlin

Keywords: affective reactivity, stressor, sport student, Ambulatory Assessment

Introduction

Sports students not only face stressors typical to students in general, but also subject specific stressors, such as risk of injury or time-consuming preparation of sport practical exams (Bastemeyer et al., 2021). Daily stressors can release affective stress reactions (Brose, 2011) which may lead to negative mental health consequences in the long term. The present study aimed at investigating affective reactivity to real life stressors in sports students and the role of the stressor context and physical activity (PA_{act}) as influencing factors.

Methods

62 sports students (f = 38, m = 23, d = 1; M_{age} 21,55, SD = 2,47) participated in a 5-day Ambulatory Assessment (AA) procedure. Students were prompted via smartphone app six times per day every two hours to assess positive (PA) and negative affect (NA), PA_{act} and daily stressful events (DSE). PA and NA were measured using the PANAS for AA studies (Timm et al., 2018). DSE (i.e., general, general academic and sport practical academic) were assessed with the Daily Inventory of Stressful Events (DISE; Almeida et al., 2002). PA_{act} was measured with the Leisure-Time Physical Activity Questionnaire (Godin & Shepard, 1985) to capture intensity, duration and context (leisure or study). Multilevel models were calculated to test how stressors predicted PA and NA (dependent variables) and how context and PA_{act} acted as moderators (interaction between stressors, PA_{act} and context).

Results

PA decreased more and NA increased more ($\beta = .49$; t = 6.2; p < .001) for general stressors compared to general academic stressors and did not change when sport practical academic stressors were present. If students reported any stressor and had been active more intense than typical for them (higher intensity than person mean) in the study context, PA decreased ($\beta = .38$; t = 1.9; p < .049) and NA increased.

Discussion

The training of recovery strategies should be part of sports students' education. Future research may investigate how intense physical activity during the study programme and leisure time may disturb sports students' affect in daily life.

References

Bastemeyer, C., Bartsch, F. & von Haaren-Mack, B., (2021). Zeitschrift für Studium und Lehre in der Sportwissenschaft, 4(2), 22-35 14 S.

Timm C., Rachota-Ubl, B., Beddig, T., Zamoscik, V., Ebner-Priemer, U., Reinhard, I., Kirsch, P., & Kuehner, C. (2018). Mindfulness-Based Attention Training improves Cognitive and Affective Processes in Daily Life in Remitted Patients with Recurrent Depression. *Psychotherapy and Psychosomatics*, 87(3), 184-186.