STRESS INDEX, ENERGETIC AND TENSE AROUSAL DURING SWIMMING TRAINING PROGRAM.

Kamel Khaled S.
(King Saud University, Saudi Arabia)

Introduction: The stress index (SI) is a guideline for interpretation of the training sets by Ernest W. Maglischo (1993). The purpose of this study was to examine the correlation between stress index (SI), Energetic (EA), and Tense Arousal (TA) during a structured competitive swimming training program. Methods: 21 male college swimmers (age = 20.2 ± 1.5 yr, height = 183.8 ± 5.5 cm, body mass = 79.6 ± 7.4 kg) were tested prior to the start of a 12-week competitive swimming training program (NCAA Division I) and at the end of week 4, 8, and 12. The Activation Deactivation Adjective Check List (AD ACL; Thayer, 1989; Ekkekakis et al., 2005), a short (20-item) self-report measure of the bipolar affective dimensions of Energetic Arousal (EA) (ranging from Energy to Tiredness) and Tense Arousal (TA) (ranging from Tension to Calmness), was completed on test days. Training program was divided into three training groups (Sprint, Middle distant and distant group) using the Stress index guideline (End1- 1 stress & End2- 2 stress & End3- 6 stress & Spr1- 8 stress & Spr2- 10 stress & Spr3- 4 stress). One way ANOVA with post hoc tests Tukey HSD was used. Results: Changes in EA during the course of the program were significant, F (3, 14) = 14.65, P < 0.01. This was due to both a decrease in Energy and an increase in Tiredness. At week 12, Energy was significantly lower and Tiredness was significantly higher than at the start of the program. Interestingly there was a significant different between the sprint and distant group in the (EA) F= 3.102 at p< 0.05. And there was a negative correlation between The Stress Index (SI) and (EA) \( r = -0.24 \) P< 0.05 and also a negative correlation between (SI) and (TA) \( r = -0.22 \) p< 0.05. Conclusions: Self-reports of affect, particularly those related to perceive energy and tiredness might be useful as convenient, non-invasive indices of training stress. The correlation between Stress Index (SI), Energetic (EA), and Tense Arousal (TA) might be also useful for designing competitive swimming training programs.

Keywords: Swimming, Self-Evaluation, Training Control