

ABSTRACT

This research was aim to examine the competitive stress which may induce psychophysiological indicators (salivary alpha-amylase and state anxiety) in male swimmers. Subjects consisted of 10 male swimmers who participated in 30th Thailand Youth National swimmers championships average age 16.10 ± 0.99 years (age range 15-18 years). Before and after competition/training immediately, the subjects were asked to complete the Thai version of CSAI-2R questionnaire to assess state anxiety. Then their saliva was collected for alpha-amylase analysis by Cocoro meter. Data was statistically analyzed at the 0.05 level of significance. The key finding of the present investigation was the observation of statistically significant difference at the level of 0.05 (increase) of salivary alpha-amylase after competition and training. In addition, the salivary alpha-amylase of post-completion was statistically significant higher than those of post training with no statistically significant found in salivary alpha-amylase between pre-completion and pre-training. The present result indicates that stressful situation as swimming have the effect (induce) on both physiological- and psychological- stress. According to the other finding, there was no significant difference of somatic anxiety, cognitive anxiety and self-confidence between pre- and post- competition and between pre- and post- training. Nevertheless, Paired t-test statistic showed the significant difference at the level of 0.05 of somatic anxiety, cognitive anxiety and self-confidence between pre-competition and pre-training and post-competition and post-training. This finding indicates that participants experienced the high psychological anxiety and low self-confidence in stressful situation. Even though, the short period of competition as swimming was not immediately effect to the psychological anxiety. Moreover, there was no significant correlation between physiological stress indicator (salivary alpha-amylase) and psychological anxiety indicator (somatic anxiety and cognitive anxiety). In conclusion, competitive sport activity like swimming causes both physiological stress and psychological anxiety. Athletes should be tested stress and anxiety level during competition and training. The stress and anxiety indicator, salivary alpha-amylase, CSAI-2R were investigated as a good measurement tool.

Keywords

Salivary alpha-amylase, State anxiety, Swimmers, Competition