

UNIVERSITI TEKNOLOGI MARA

**SIGNS OF PSYCHOLOGICAL AND
PHYSIOLOGICAL CHANGES IN
INDIVIDUAL AND TEAM SPORTS**

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Thesis submitted in fulfilment
of the requirements for the degree of
Master of Science


Faculty of Sport Science and Recreation


January 2015

AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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ABSTRACT

The purpose of this study was to discover whether psychological and physiological parameters of anxiety existed between athletes who participated in individual sports versus athletes who competed in team sports. The sample comprised of Malaysian males back up athletes (N=52). State anxiety (Competitive State Anxiety Inventory (CSAI-2), heart rate and salivary cortisol samples were measured at three different times, which were one week, one day and one hour prior to the competition. In addition, trait anxiety scale was administered only to participants at one week before competition using State Trait Anxiety Inventory (STAI). Once the competition finished, performance satisfaction scale was obtained from the participants. Result of this study revealed that none of the variables, except for trait anxiety showed significant difference between individual and team sports athletes. In individual sport athletes, there was a significant difference in somatic anxiety at one week and one day prior to the competition. Unfortunately, somatic anxiety did not demonstrate any significant effect of time in team sports athletes. Trait anxiety also showed significantly moderate negative correlation with cognitive anxiety in individual sports. In team sports athletes, trait anxiety was significantly moderate positive correlation with self-confidence. Moreover, a significant strong, positive relationship between cognitive anxiety and somatic anxiety was noted in both individual and team sports athletes. There was a significant strong, negative relationship between cognitive anxiety scores and self-confidence scores in individual sports. The results indicated that there was no significant correlation of CSAI-2 subscale scores with cortisol response in individual sports athletes across the three difference times. Whereas in team sports athletes, a significant moderate negative correlation was noted in self-confidence and cortisol response at one week prior to the competition and significant strong, positive relationship between somatic anxiety and cortisol response. Cortisol response was found significantly moderate negative correlation with performance satisfaction in individual sports but not in team sports. The results of this study could provide insight toward anxiety differences in athletes from different sports categories when the competition approaches. The measurement of cortisol at the same time with self-reports psychological indicators would provide an approach to examine changes in anxiety. Therefore, it is suggested that in future studies the effect of higher level of competitive situation on the anxiety related hormones should be examined.

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