

Relationship Between Mental Skill and Competitive Anxiety in Female National Football Players

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Abstract: This study examined the mental skill and competitive anxiety level as well as their relationship in female national football players of Iran. A cross-sectional study and data for the study were collected from 16 female national football players (n=16) who ranged in age from 22 to 27 years. All participants completed Ottawa and SCAT questionnaire for measuring mental skill and competitive anxiety, respectively. Data were analyzed with Pearson r correlations. Results showed that there was a significant relationship between mental skill and competitive anxiety in female national football player of Iran ($p < 0.05$). Therefore according on the study findings it is important that researchers categorize athletes based on the type of sport, in order to determine differences between different sports and to identify methods by which they can achieve high levels of performance.

Key words: Aerobic • Anaerobic • Athletic • Leukocytes • Neutrophils • Monocytes • Phagocytosis • Iran

INTRODUCTION

Sport competition has become important in today's society and extremely high expectations are placed on competing athletes regardless of competitors' capacities, reasons for participation and skill levels. An inherent aspect of competitive athletics is the need for players to meet the demands of competition and to perform well under pressure [1]. Some of the researchers explored the roles that situational factors play in mediating the state anxiety of athletes prior to competitions [2-4]. Anxiety is defined as feelings of nervousness and tension caused by the environment or surrounding expectation that is related to 'arousal'. Those demands are usually stressful and thus causing an imbalance between the demands and the athlete's ability to fulfill the expectation. These sorts of conditions place high stress loads on the individuals who are competing. The stress presented in competition usually elicits competitive anxiety in athletes, supplying an additional element for them to manage. When anxiety is not directed or construed correctly, athletes lose control and performance levels [5, 6]. All these years, an

increase in performance has been the foundation need of what dreamed by all athletes to stand out in their respective sports. Athletes train hard to help their skills and faculty's regardless of the time they take to fulfill this [7]. When anxiety is not managed or explained correctly, athletes lose control and their performance levels decrease [8, 9]. It is not possible that fatigue and anxiety are synonym with sport across different cultures with the kind of stress present in each society. Although they are a lot of information on subjects of fatigue and anxiety, it is only recently that they are researchers performing studies on the relationship between fatigue and perception on anxiety. Competitive anxiety has been one of the most thoroughly inspected topics in sport psychology literature [10, 11]. Among the popular coping strategies used by athletes to deal with anxiety are goal-setting, breath control, imagery, positive self-talk, focus on the present, progressive relaxation, biofeedback, autogenic training, meditation and thought stopping [7]. Therefore, there need to be a positive thinking and better mental skills to solve the problems that may arise because of anxiety. If it is not handled well or misinterpreted, the

athletes will lose control and their performance will decrease [12]. As a result, this study examines the mental skill and competitive anxiety level tries to find relationships between them in female national football players of Iran.

Method: The research was a cross-sectional study and conducted as a descriptive and inferential method.

Participants: Data for the study were collected from 16 female football national players (n=16) ranged in age from 22 to 27 years and the average of the participants height was 165.81 and the average weight was 58.12.

Measurement: All subjects completed questionnaires of Ottawa (OMSAT3) and Rainer and Martin's Sports Competition Anxiety Test (SCAT) for measure of competitive anxiety a day and 30 minutes before competition, respectively.

Procedures

Sports Competition Anxiety Test-(SCAT): which measures the competitive anxiety of athletes (Marten *et al.* 1990), was used to evaluate the anxiety level of football players. The test includes fifteen items which involve 5 spurious items, 8 positive items and 2 negative items. Competitive trait anxiety was measured by Martens' 9 Sport Competition Anxiety Test (SCAT). The SCAT is a 15-item inventory with scores ranging from 10 (low) to 30 (high) [13].

Ottawa Mental Skill Assessment Tool-3 (OMSAT-3):

OMSAT-3 is used to measure a wander of mental skills. The OMSAT-3 involves 48 items and 12 mental skill groups, which are grouped under three main general idea components. They are 1) Goal Setting 2) Self Confidence 3) Commitment 4) Stress Reactions 5) Fear Control 6) Activation 7) Relaxation 8) Imagery 9) Mental Practice 10) Focusing 11) Refocusing and 12) Competition planning. A 7-point Likert scale is used, ranging from strongly agree to strongly disagree with a neutral option available [14]

Statistical Analysis: For the evaluation of SCAT questionnaire single sample T-test was employed and Pearson r correlations were used to assess the relationship between competitive anxiety and mental skill. The significance level was determined as $p < 0.05$. All calculations were performed by using the SPSS statistical package for windows (V.18.0)

RESULTS

The main focus of the study is on the proposed relationship between mental skills and competitive anxiety. The results show that there is a significant relationship between mental skills and competitive anxiety ($p < 0.05$).

There were significant relationship between competitive anxiety and subscales of mental skills, mental practice, refocusing, fear control, goal setting, focusing, self confidence, psychosomatic skill, cognitive skills and mental skill ($p < 0.05$). There were no significant relationship between competitive anxiety and subscales of mental skills, stress reactions, commitment, relaxation, activation, imagery, competition planning, foundation skills ($p > 0.05$). High correlation was found between self-confidence and competitive anxiety ($r = 0.515$) and low correlation was found between commitment and competitive anxiety ($r = 0.136$). A higher degree of relationship, psychosomatic skills subscales was found between stress control and competitive anxiety ($r = 0.512$) and less relationship was found between activation and competitive anxiety ($r = 0.162$). A higher degree of relationship cognitive skills subscales was found between focusing and competitive anxiety ($r = 0.553$) and a low relationship was found between image and competitive anxiety ($r = 0.216$). A higher correlation relationship mental skills subscales (psychosomatic skill, cognitive skills and foundation skills) was between cognitive skills and mental skills ($r = 0.562$) and a low relationship was found between foundation skills and mental skills ($r = 0.225$).

Table 1: Results from descriptive statistic and relationship between mental skills and competitive anxiety

Mental skills and their subscale	Mean \pm SD
Goal Setting	0.53 \pm 6.06
Self Confidence	0.57 \pm 6.21
Commitment	0.93 \pm 5.76
foundation skills	0.54 \pm 6.01
Stress Reactions	0.95 \pm 2.98
Relaxation	0.88 \pm 5.31
Fear Control	1.03 \pm 2.82
Activation	0.69 \pm 5.35
psychosomatic skills	0.49 \pm 4.12
Focusing	1.08 \pm 2.93
Refocusing	0.91 \pm 3.21
Imagery	1.10 \pm 5.26
Mental Practice	0.88 \pm 5.14
Competition planning	1.03 \pm 5.48
cognitive skills	0.44 \pm 4.40
mental skills	0.36 \pm 4.71
Goal Setting	0.53 \pm 6.06

DISCUSSION

This cross sectional study examined the relationship between mental skills and competitive anxiety in female football national player in Iran. As a corollary analysis, the relationship between mental skills and the intensity of anxiety was measured by the SCAT and OMSAT-3. As a major finding in this study, there were relationships between the mental skills and competitive anxiety of female athletes. Because all athletes were examined together in this phase to see how different mental skills might affect the ways in which athletes interpret their feelings of anxiety. Because of the small sample size, the three types of mental skills that measured by the OMSAT were examined partly in relation to the SCAT subscales representing competitive anxiety [5]. It is found that a significant relationship exists between mental skills and competitive anxiety ($p < 0.05$). The main finding of this study was consistent to research results from Ghotbi *et al.* (2011), Filino *et al.* (2009) [5, 14-22].

Aufenanger (2005), in their study showed that a relationship exists between mental skills and anxiety were predictive athletes' interpretation of anxiety and self-confidence as facilitator to their performance. The main finding of Sharyn study was consistent to research results from our research about relationship exists between mental skills and self-confidence [5].

CONCLUSION AND SUGGESTIONS

It is confirmed that there is a correlation between mental skills and competitive anxiety of female football athletes. The focus of this study was on Iranian football national players. Therefore, further studies in this respective field should be performed in deeper and wider contexts that will consider athletes from other organizations. In all research studies, it is important that researchers categorize athletes based on the type of sport, in order to determine differences between different sports and to identify methods by which they can achieve high levels of performance.

REFERENCES

1. Craft, L.L., T.M. Magyar, B.J. Becker and D.L. Feltz, Others. 2003. The relationship between the Competitive State Anxiety Inventory-2 and sport performance: A meta-analysis. *Journal of Sport and Exercise Psychology*. 25(1): 44-65.
2. Jones, G., A. Swain and A. Cale, 1991. Gender differences in precompetition temporal patterning and antecedents of anxiety and self-confidence. *Journal of Sport & Exercise Psychology* [Internet].
3. Krane, V. and J.M. Williams, 1994. Cognitive anxiety, somatic anxiety and confidence in track and field athletes: The impact of gender, competitive level and task characteristics. *International Journal of Sport Psychology* [Internet].
4. Matheson, H. and S. Mathes, 1991. Influence of performance setting, experience and difficulty of routine on precompetition anxiety and self-confidence of high school female gymnasts. *Perceptual and Motor Skills*. 72(3c): 1099-105.
5. Aufenanger, S.J., 2005. Relationships between mental skills and competitive anxiety interpretation in open skill and Close Skill Athletes.
6. Bridges, A. and B. Knight, 2005. The role of cognitive and somatic anxiety in athletic performance. Thesis Hanover College.
7. Parnabas, V.A., Y. Mahmood and K. Ampofo-Boateng, 2009. Cognitive, Somatic and Negative Coping Strategies Among Malaysian Athletes. *European Journal of Social Sciences*. 9: 3.
8. Weinberg, R.S. and D. Gould, 2010. Foundations of sport and exercise psychology [Internet]. Human Kinetics Publishers.
9. Raglin, J.S. and Y.L. Hanin, 2000. Competitive anxiety. *Emotions in Sport*. pp: 93-111.
10. Khodayari, B., A. Saiiari and Y. Dehghani, 2011. Comparison Relation between Mental Skills with Sport Anxiety in Sprint and Endurance Runners. *Procedia-Social and Behavioral Sciences*. 30: 2280-4.
11. Amy Csiumei, Arts Bof, 2005. Education P. Relationship between pre competition anxieties and situationalv factors of university badminton players.
12. Gualberto, C.J. and M.S. Wiggins, 2008. Direction and intensity of trait anxiety as predictors of burn out among collegiate athletes. *Journal of Sport Psychology*. Murray State University.
13. Singh, A., S. Singh and B.B. Yadav, 2011. A study of pre and post-competitive anxiety level of inter-university basketball players. *Indian Journal of Science and Technology*. 4: 6.
14. Dominikus, F., O. Fauzee, M. Sofian, M.C. Abdullah, C. Meesin and C. Choosakul, 2009. Relationship between mental skill and anxiety interpretation in secondary school hockey athletes. *European Journal of Social Sciences*. 9(4): 651-8.

15. Neil, R., S.D. Mellalieu and S. Hanton, 2006. Psychological skills usage and the competitive anxiety response as a function of skill level in rugby union. *Journal of Sports Science and Medicine*. 5(3): 415-23.
16. Fletcher, D. and S. Hanton, 2001. The relationship between psychological skills usage and competitive anxiety responses. *Psychology of Sport and Exercise*. 2(2): 89-101.
17. Perry, J.D. and J.M. Williams, Others. 1998. Relationship of intensity and direction of competitive trait anxiety to skill level and gender in tennis. *Sport Psychologist*. 12(2): 169-79.
18. Wiggins, M.S., 2001. Direction and intensity of trait anxiety: A comparison of high school male and female athletes' competitive anxiety. *International Sports Journal*. 5(2): 153-9.
19. Hanton, S., S.D. Mellalieu and R. Hall, 2004. Self-confidence and anxiety interpretation: A qualitative investigation. *Psychology of Sport and Exercise*, 5(4): 477-95.
20. Weinberg, R.S. and D. Gould, 2007. *Foundations of Sport and Exercise Psychology*.
21. Hammermeister, J., M.A. Pickering, L. McGraw and C. Ohlson, 2010. Relationship Between Psychological Skill Profiles and Soldier Physical Fitness Performance. *Military Psychology*. 22(4): 399-411.
22. Thomas, P.R. and G.J. Fogarty, 1997. Psychological skills training in golf: The role of individual differences in cognitive preferences. *The Sport Psychologist*. 11(1): 86-106.