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Estimation of competitive state anxiety among sprinters, jumpers and throwers inter- university female athletes

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Abstract

The purpose of this study was to Estimation of Competitive State Anxiety among Sprinters, Jumpers and Throwers inter- university female athletes. For achieving the purpose of the study, data was collected on total 60 female athletes Sprinters: 20, Jumpers: 20 and Throwers: 20 were recruited as subject. The age of all players range between 18 to 25 years. To check Pre-competitive anxiety of recruited subjects, The Competitive State Anxiety Inventory 2 (CSAI-2) Martens, Vealey, and Burton (1990) questionnaire was used. The questionnaire consisting of 3 dimensions: Cognitive Anxiety, Somatic Anxiety and Self-confidence. This study shows that Anxiety is required to measure the performance during competition. The Statistical Package for the Social Sciences (SPSS) version 16.0 was used for all analysis. The differences in the mean of each group for selected variable were tested for the significance of difference by One-way Analysis of Variance (ANOVA). For further analysis Post-Hoc Test (LSD Test) was applied. In all the analyses, the 5% critical level ($p < 0.05$) was considered to indicate statistical significance. The result shows that statistically significant differences were found with regard to Somatic state anxiety among Sprinters, Jumpers and Throwers inter- university female athletes.

Keywords: Estimation, competitive, anxiety. sprinters, throwers, athletes

Introduction

Anxiety in sports is such a huge issue for many athletes. The logic is that, the better you become, the higher the level of competition, the more anxiety you experience. Anxiety can have a devastating effect on the performance of an athlete. No matter how much talent or skill one may have, he will never perform at his or her best if he or she lives in fear before every event. The precise impact of anxiety on sporting performance depends on how you interpret your world. In the world today, nearly every concern of human endeavor is thought to be affected by anxiety. A number of theories exist concerning the effect of anxiety on performance, and while there seems to be an interaction effect between the amounts of anxiety necessary to maximally perform certain specific task, all theories seems to agree that maximum performance is reduced by too much anxiety (Athan & Sampson, 2013)^[1].

Anxiety is one of the most common modules inducing sports performance, with different intensity separate levels of experience. In general psychology it designates those anxious psychomotor (bodily) states in which a individual touches as if he/she is going to „explode“. Anxiety (fear, worry) is a hurting state of helplessness and insecurity. It is a state of tension, worry, expectance of some terrible event. An anxious person is not aware of the source of uncomfortable state and tension. An anxious reaction is an attempt of liberating anxiety and tension through body. This is the reason why anxiety is accompanied by symptoms of voluntary muscles overload, higher activity of the autonomic nervous system, intensified manifestation of certain organs or certain body systems. Common anxiety has a motivational and adaptive function, stimulates deliberation, planning, caution, and prevents repeated exposures to uncomfortable or painful situations. One can control this kind of anxiety (Erceg, M., *et al*, 2013)^[2].

Anxiety is a complex negative emotion with a variety of cognitive physiological and behavioral symptoms (Martens *et al.*, 1990)^[7]. Anxiety is a reaction by an individual to a stressful situation (Spielberg, 1972)^[8] and in competitive sports. A great amount of stress can be

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placed a player’s performance. Anxiety has been an important focus of research in sports and performance psychology. Research in clinical and test anxiety literature has separated the state anxiety into cognitive and somatic components (Liebert and Morris, 1976; Borkovec, 1976;) [10]. Cognitive anxiety refers to negative expectations and cognitive concern about performance, the consequences of failure, negative self-evaluation, evaluation of one’s ability relative to others, the ability to concentrate and disrupted attention. Somatic anxiety refers to one’s perception of the affective physiological ailments of the anxiety generated from an increase of autonomic arousal and unpleasant feeling such as nervousness, tension and upset.

Lious (2006) [4] opined that when athletes start to knowledge increase heart rate, sweating, rapid breathing and dry mouth prior to competition, it all indicate signs of pre-competitive nervousness. At this phase of their life, their thoughts become self-focused, self-defeating and negative. However, the degree to which pre-competitive anxiety influence athlete’s performance is largely dependent upon the interaction of the athletes, uniqueness and the competitive situation. In support of this, Krane (1994) [3] investigate that our bodies provide us with numerous cues such as muscle pressure, butterflies, desire to urinate and cotton mouth that recommend that we are out of control.

Procedure and Methodology

The present research was entitled as “Estimation of Competitive State Anxiety among Sprinters, Jumpers and Throwers inter- university female athletes”. To achieve this purpose total 60 Inter- University female athletes (Sprinters: 20, Jumpers: 20 and Throwers: 20) were recruited as subject. The age of all subjects were ranged from 18 to 25 years. To check Pre-competitive anxiety of recruited subjects, The Competitive State Anxiety Inventory 2 (CSAI-2) Martens, Vealey, and Burton (1990) [7] questionnaire was used. The Competitive State Anxiety Inventory 2 (CSAI-2) is a 27 item questionnaire consisting of 3 dimensions: Cognitive Anxiety, Somatic Anxiety and Self-confidence. To score the CSAI-2, take all the scores for each item at face value with the exception of item 14, where you "reverse" the score. For example, if you circled 3, count that as 2 points (1 = 4; 2 = 3; 3 = 2; 4 = 1).

Total scores in the following manner:

___ Cognitive state anxiety: Sum items 1, 4, 7, 10, 13, 16, 19, 22, and 25.

___ Somatic state anxiety: Sum items 2, 5, 8, 11, 14, 17, 20, 23, and 26.

___ Self-confidence: Sum items 3, 6, 9, 12, 15, 18, 21, 24, and 27.

Results

Table 1(a): Analysis of Variance (ANOVA) results with regard to Cognitive state anxiety among female Sprinters, Jumpers and Throwers.

Source of variance	Sum of Squares	Df	Mean Square	F-ratio	Sig.
Between Groups	93.90	2	46.95	2.001	.145
Within Groups	1337.70	57	23.46		
Total	1431.60	59			

Significant at F0.05 (3.16)

It is evident from table 1(a) that the results of Analysis of Variance (ANOVA) among three groups of female Sprinters,

Jumpers and Throwers with regard to the sub-parameter Cognitive state anxiety of Competitive State Anxiety were found to be statistically insignificant ($P>0.05$). Since the obtained “F” ratio 2.001 (.145) was found statistically insignificant.

Table 2(a): Analysis of Variance (ANOVA) results with regard to Somatic state anxiety among female Sprinters, Jumpers and Throwers.

Source of variance	Sum of Squares	Df	Mean Square	F-ratio	Sig.
Between Groups	167.43	2	83.71	4.391*	0.17
Within Groups	1086.75	57	19.06		
Total	1254.18	59			

*Significant at F0.05 (3.16)

It is evident from table 2 that the results of Analysis of Variance (ANOVA) among three groups of female Sprinters, Jumpers and Throwers with regard to the sub-parameter Somatic state anxiety of Competitive State Anxiety were found to be statistically significant ($P>0.05$). Since the obtained “F” ratio 4.391 (.017) was found statistically significant. The results of post-hoc test have been presented in Table 2(b) below.

Table 2(b): Analysis of Least Significant Difference (LSD) post hoc test with regard to Somatic state anxiety among female Sprinters, Jumpers and Throwers.

Group (A)	Group (B)	Mean Difference (A-B)	Sig.
Sprinters (Mean=23.05)	Jumpers	1.05000	.450
	Throwers	3.95000*	.006
Jumpers (Mean=22.00)	Sprinters	-1.05000	.450
	Throwers	2.90000*	.040
Throwers (Mean=19.10)	Sprinters	-3.95000*	.006
	Jumpers	-2.90000*	.040

*Significant at F0.05 (3.16)

A look at Table 2(b) showed that the mean value of Sprinters female athletes were 23.05 whereas Jumpers female athletes had mean value as 22.00 and the mean difference between both the groups was found 1.05000. The p-value sig .450 shows that the Jumpers female athletes had demonstrated better on Somatic state anxiety than their counterpart’s Sprinters female athletes insignificantly. The mean value of Sprinters female athletes were 23.05 whereas Throwers female athletes had mean value as 19.10. The mean difference between Sprinters and Throwers female athletes was found 3.95000*. The p-value sig .006 showed that the Throwers female athletes had demonstrated better on Somatic state anxiety than their counterpart’s Sprinters female athletes significantly. The mean difference between Jumpers and Throwers female athletes was found 2.90000*. The p-value sig .040 shows that the Throwers female players had demonstrated significantly better on Somatic state anxiety than their counterpart’s Jumpers female athletes.

Table 3: Analysis of Variance (ANOVA) results with regard to Self-confidence among female Sprinters, Jumpers and Throwers.

Source of variance	Sum of Squares	Df	Mean Square	F-ratio	Sig.
Between Groups	57.60	2	28.80	1.653	.201
Within Groups	993.40	57	17.42		
Total	1051.00	59			

* Significant at F0.05 (3.16)

It is evident from table 3 that the results of Analysis of Variance (ANOVA) among three groups of female Sprinters, Jumpers and Throwers with regard to the sub-parameter Self-confidence of Competitive State Anxiety were found to be statistically insignificant ($P>0.05$). Since the obtained “F” ratio 1.653 (.201) was found statistically insignificant. Sahu, 2016 and Kavita & Sharma 2015

Conclusion

The present results also indicate that the significant, partially significant and insignificant differences among Sprinters, Jumpers and Throwers inter- university female athletes. It is evident from results that partially significant differences were found among Sprinters, Jumpers and Throwers with regard to the Competitive State Anxiety sub parameters; Somatic state anxiety. While comparing the mean values of three groups, it has been noticed that the Throwers female athletes had demonstrated better on Somatic state anxiety than their counterpart's Jumpers female athletes. Insignificant differences were found in Cognitive state anxiety and Self-confidence. Sahu, 2016 and Kavita & Sharma 2015 supported the present study.

References

1. Athan AN, Sampson UI. Coping with pre-competitive anxiety in sports competition. *European Journal of Natural and Applied Sciences*. 2013; 1(1):1-9.
2. Erceg M, Milic M, Zivkovic V. Pre-Competitive Anxiety in Soccer Players. *PESH* 2013; 02(01):3-7.
3. Krane V. Comparative Anxiety, Situation Criticality and Softball Performance. *Sports Psychologist* 1994; 8:58-71.
4. Louis A. *Psychology: Seven Editions*. New York, 2006.
5. Kavita V, Sharma JP. A comparative study of competitive state anxiety level between two age categories of male and female yoga players. *International Journal of Physical Education, Sports and Health*. 2015; 2(1):01-02.
6. Sahu DP. A comparative study on pre-competition anxiety between individual games and team games. *International Journal of Multidisciplinary Research and Development*. 2016; 3(1):121-123.
7. Martens R, Burton D, Veale RS, Bump LA, Smith DE. Development validation of the Competitive State Anxiety Inventory- 2. In R. Martens, R.S. Veale & D. Burton (Eds.), *Competitive anxiety in sport*. 1990, 117-190. Champaign, IL: Human Kinetics.
8. Spielberg CD. Current trends in theory and research on anxiety. In C.D. Spielberg (Ed.), *Anxiety: Current trends in theory and research*. 1972, 3-19. New York: Academic Press.
9. Liberty RM, Morris LW. Cognitive and emotional components of test anxiety. *Psychological Reports*. 1967; 20:975-978.
10. Borkovec TD. Physiological and cognitive process in the regulation of anxiety. In G.E. Schwartz & D. Shapiro (Eds.), *Consciousness and self-regulation. Advances in research*. 1976; 1:216-312. New York: Plenum.