

PRE-COMPETITION CHANGES IN SOMATIC AND COGNITIVE ANXIETY OF VOLLEYBALL PLAYERS

(Received on: 21 Oct 2014, Reviewed on: 14 Jan 2015 and Accepted on: 12 Feb 2015)

Dr. Pradeep Saraswat

Sports Officer,
G.R. Medical College, Gwalior



Abstract

The present study was conducted to compare the pre competition temporal patterning of somatic and cognitive anxiety among male athletes. 30 male athletes from Volleyball game participated in All India intervarsity championship were selected as subjects for the study. The age of the students ranged from 18 to 24 years. The questionnaire used was consist of short form of CSAI-2 by (Cox, Russel and Robb) for measuring somatic and cognitive anxiety. the questionnaire were administered to subjects at different time durations prior to competition .i.e. two weeks, one week, two days, one day, two hours and thirty minutes prior two competition. The statistical tool used for this study was one way analysis of variance (f-ratio). The statistical findings pertaining to the somatic anxiety of volleyball Players shows increase from a low level at two weeks prior to competition to a significantly high value just thirty minutes prior to competition. Similarly in the case of cognitive anxiety gradual increase can be seen when the athlete approaches closer to the time of competition.

Keyword: Competitive Sports, Fear and Performance

Introduction

Success in competitive sports is no doubt related to a very high level of physical fitness, mastery over the skill particularly to a sporty tactics and strategy applied in the particular position or situation. The recent researches reveal that besides these factors success in sports to a considerable extent depends upon the personality sports person. Today performance in sports not only demands systematic training to develop physical, physiological variable and technical aspect of sports but also demands training and consideration of psychological characteristics for success in this field. The relationship between self-confidence. Anxiety and sports performance has attracted much researcher attention over the past few years and researchers have tried to classify this relationship by advancing several models and theories. The purpose of this study was to compare the pre-competition temporal patterning of self-confidence, somatic and cognitive anxiety among male athletes.

Sport competition is well known for placing extremely high demands on athletes. Frequently, outcomes for these contests are decided by minute differences in preparation and skill between the competitors. Sport competition has become so important in today's society that extremely lofty expectations by others are placed on competing athletes regardless of competitors' abilities, reasons for participation, and skill levels.

Materials and Methods

Thirty male athletes from Volleyball game participated in All India intervarsity competitions were selected as subjects for the study. The average age of the subjects was 21 years ranging between 18 to 24 years.

The questionnaire used was consists of short form of CSAI-2 for measuring somatic and cognitive anxiety developed by (Cox, Russel & Robb) The questionnaires were administered to subjects at different time durations prior to competition i.e. two weeks, one week, two days, one day, two hours and thirty minutes prior to competition. One-way analysis of variance was used as statistical tool to find out the significance of difference of means

Results

TABLE – 1
MEANS AND STANDARD DEVIATIONS OF SOMATIC ANXIETY AT DIFFERENT TIME DURATIONS PRIOR TO COMPETITION AMONG VOLLEYBALL PLAYERS

Two Weeks		One Week		Two Days		One Day		Two Hrs.		Thirty Min.	
M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
4.73	± 2.20	5.57	± 2.70	6.17	± 1.98	6.97	± 2.56	8.93	± 2.93	11.67	± 3.70

Table 1 shows the means and standard deviation of players of volleyball game at different time duration in respect of somatic anxiety.

For the game of volleyball the mean value at two weeks prior to competition is 4.73 which gradually increase up as 5.57 at 1 week prior than 6.17, 6.97, 8.93 and finally 11.67 thirty minutes prior to competition.

TABLE – 2
MEANS AND STANDARD DEVIATIONS OF COGNITIVE ANXIETY AT DIFFERENT TIME DURATIONS PRIOR TO COMPETITION AMONG VOLLEYBALL PLAYERS

Two Weeks		One Week		Two Days		One Day		Two Hrs.		Thirty Min.	
M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
6.43	± 3.06	6.87	± 2.40	7.6	± 3.17	9	± 2.28	10.7	± 2.51	12.93	± 4.30

Table 2 shows the mean and standard deviation of players of selected games at different time durations in respect of cognitive anxiety.

The least mean value can be observed at two weeks prior to competition (6.43) which reached to 6.87 1week prior than 7.6 two days prior, 9 at 1 day prior 10.7 at two hours prior and finally high to a value of (12.93) just 30 min prior to competition.

Somatic Anxiety

The result pertaining to the significant difference between the means of somatic anxiety in volleyball game at various durations prior to competition by using one way analysis of variance is presented in the table 3.

TABLE – 3
SIGNIFICANCE OF DIFFERENCE OF SOMATIC ANXIETY OF
VOLLEYBALL PLAYERS AT DIFFERENT TIME DURATIONS
PRIOR TO COMPETITION

Source of Variation	Degree of Freedom	Sum of Squares	Mean Sum of Squares	F-ratio
Among Means	5	981.43	196.28	25.28*
Within Means	174	1350.9	7.76	

*Significant, $F_{.05}(5,174) = 2.27$

It is evident from the table 5 that the calculated value of F-ratio (25.28) in relation to somatic anxiety is much higher than the tabulated F-value (2.27) at .05 level of significance with (5,174) degree of freedom. It shows that there is significant difference between the mean values of somatic anxiety at different time durations prior to competition.

Cognitive Anxiety

The result pertaining to the significant difference between the means of cognitive anxiety in volleyball game at various durations prior to competition by using one way analysis of variance is presented in the table 8..

TABLE – 8
SIGNIFICANCE OF DIFFERENCE OF COGNITIVE ANXIETY OF
VOLLEYBALL PLAYERS AT DIFFERENT TIME DURATIONS
PRIOR TO COMPETITION

Source of Variation	Degree of Freedom	Sum of Squares	Mean Sum of Squares	F-ratio
Among Means	5	942.712	188.54	19.76*
Within Means	174	1660.188	9.54	

*Significant, $F_{.05}(5,174) = 2.27$

It is evident from the table 8 that the calculated value of F-ratio (19.76) in relation to cognitive anxiety is much higher than the tabulated F-value (2.27) at .05 level of significance with (5,174) degree of freedom. It shows that there is significant difference between the means of cognitive anxiety at different time durations prior to competition.

Findings

Statistical findings pertaining to, somatic anxiety and cognitive anxiety revealed

The somatic anxiety of Volleyball players increased from a low level at two weeks prior to competition to a significantly high value just thirty minutes prior to competition.

Similarly, in the case of Cognitive anxiety of Volleyball players the cognitive anxiety gradually increased when the athlete approaches closer to the time of competition.

Discussion

Temporal variation in terms of fluctuating anxiety level before competition is considered unavoidable phenomenon as it is inherent constituent factor of competition. Desire to perform or win becomes ultimate motive that directs and energizes behavior of sportsmen and ultimately motive to succeed leads to generation as well as perception of threat. Fourteen days prior to competition, the level of somatic or cognitive anxiety were found to be below average level, this might be due to the fact that, as a standard practice the coaching camps specifically for the university competition starts only at ten days prior to the competition and it is only during training camp days player starts visualizing various aspects of competition and state of his preparedness. That's why as the training camp progress and competition come closer, temporal variation starts with exhibition of constant and drastic increase in anxiety and decrease in self confidence.

REFERENCES

- Bakker, F.C, H. T. A. Whiting & H. Vander Brug (1990), Sport Psychology: Concepts and Applications, Chichester: Wiley.
- Becker, B., Feltz, L. D. and Magyar, T. (2003) "The Relationship Between the Competitive State Anxiety Inventory-2 and Sports Performance: A Meta Analysis" Journal of Sport & Exercise Psychology 25, p1.
- Bell, Keith F. (1983), Championship Thinking: The Athletes Guide to Winning Performance in All Sports, London: Prentice Hall Inc.
- Cox, R. H., Russel W.D. and Robb. M. (1994) "Development of a CSAI-2 short form for Assessing Competitive State Anxiety During and Immediately Prior to Competition," Journals of Sports Behaviour, Vol. 21, No. 1.
- Cratty, Bryant J.(1975) Movement Behaviour & Motor Learning, London: Lea and Febiger.
- Jones, Graham and Sheldon, Hanton (2001) "Pre-Competitive Feeling States and Directional Anxiety Interpretations," Journal of Sports Sciences 19.
- Kamlesh, M. L. and Singhal, M. S. (1980) Principles and History of Physical Education, Ludhiana: Prakash Brothers Educational Publisher.
- Marten, R., D. Burton, R.S. Vealey, L.A. Bump & D.E. Smith (In Press). The Competitive State Anxiety Inventory-2 (CSAI-2). In D. Burton & R. Vealey (Eds), Competitive Anxiety. Champaign, IL: Human Kinetics.
- Martens, R., R. S. Vealey, & D. Burton. Competitive Anxiety in Sport, (Champaign, IL, England: Human Kinetics Publishers, 1995).
- Worchel, S., & Goethals, G. R. Goethals, Adjustment: Pathways to Personal Growth, Englewood Cliffs, N.J. Prentice Hall.