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COMPETITIVE STATE ANXIETY AMONG ADOLESCENT BASKETBALL PLAYERS DURING A TOURNAMENT

Gururaj Puranik [1] and Basavaraj Dammalli [2]

[1]Assistant Professor in Physical Education, M.V.A.S. Shri K. G. Nadgir College of Physical Educatio
[2]Director of Physical Education, A.R.M. First Grade College

Abstract :

The purpose of the study was to investigate the variation in competitive state anxiety among adolescent male basketball players during a tournament. In all 113 male basketball adolescent players, who represented ten schools of Dharwad district participated in basketball tournament constituted sample for the study. Tool 'Sports Competitive State Anxiety Inventory – II' was administered to the participants for 20 minutes prior to their match. The inventory provided scores on state cognitive anxiety, state somatic anxiety and self confidence. In the first round, pre-quarter finals, of the ten-team tournament six teams were given 'bye'. Thus only four teams played the first round. In the second round, i.e. quarter finals, eight teams participated. In the third round, i.e. semifinals four teams and in the finals two teams participated. Thus the participating teams played four rounds in the tournaments. Round wise data was subjected to analysis of variance. The results indicated that there were no significant differences in the somatic anxiety and self-confidence scores from round to round, while cognitive anxiety significantly increased before the finals. The results and the implications are discussed in the article.

Keywords: *state anxiety, cognitive anxiety, state somatic anxiety, self confidence*

ISSN 2231-5063
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INTRODUCTION

Sports are highly specialized activity and today it has become highly competitive. It has become one of the most widely practiced human activities. Sports are also psycho-social activities, which have a very important role in shaping modern society. The world of games and sports has crossed many milestones. Scientific theories applied to human performance have been playing an increasingly important role in training of athletes to attain excellence in sports and games. Sports performance is the result and expression of the total personality of the sportsman.

Psychological makeup of the sportsman takes a leading role on top level performance in any competition. Psychological factors determine the competitive behavior, mental processes and preparation before competition. Sports psychology deals with increasing performance by managing emotions and minimizing the psychological factors that deteriorate performance. Some of the most important psychological skills that are taught to athletes are goal setting, relaxation, visualization, self-talk, awareness and control, concentration using rituals, and attribution. It has been recognized for many years that psychological factors, in particular anxiety, play a crucial role in competition (Lizuka, C.A. *et al*., 2005).

Anxiety is a psychological state having somatic, emotional, cognitive and behavioral components. The basic meaning of the anxiety is "to trouble" in either the absence or presence of psychological stress. It can create feelings of fear, worry and uneasiness. It is also defined as a disturbed state of the body, emotional reactivity, nervousness, unpleasant state of the body and mind. Physical effects of anxiety may include heart palpitation, muscle weakness, tension, fatigue, chest pain, shortness of breath, stomach-aches and headaches. The body prepares to deal with threat by increasing blood pressure and heart rate, sweating, blood flow to the major muscle groups. Visual manifestations of anxiety may include pale skin, sweating and trembling.

Anxiety is divided into two types, 'Trait' and 'State' anxiety. Trait anxiety is personality trait. It is influenced by heredity and nothing much can be done to change the trait anxiety. State anxiety on the other hand can be controlled and altered. It changes according to the situation. State anxiety is further subdivided into two sub components such as, 'Cognitive and Somatic Anxiety'. Cognitive anxiety is characterized by negative thoughts, inability to concentrate and disturbed attention. Somatic anxiety is one's perception of psychological arousal such as rapid heart rate, tensed muscles and butterflies in stomach. Somatic anxiety differs from psychological arousal in that arousal is measured through actual physiological indices (such as increased blood pressure, increased pulse rate, etc.), while somatic anxiety reflects one's perception of their psychological arousal. It is important to distinguish cognitive anxiety from somatic anxiety. Anxiety has been proposed to differentially related to athletic performance and has different antecedents. Cognitive anxiety is expected to negatively affect athletic performance while somatic anxiety will have a curvilinear relationship with performance.

Thus, state anxiety is one of the most commonly measured parameter in sports psychology. Anxiety can be considered as the emotional impact or cognitive dimension of arousal. Anxiety has been viewed as feeling of nervousness and tension associated with activation or arousal of the organism. Anticipatory or imaginative process causes it. Competitive sport can make even the world's

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GOLDEN RESEARCH THOUGHTS

most successful athlete feel nervous. Many factors such as expectations, perfectionism, fear of failure, lack of confidence, induce feelings of anxiety in athletes. The level of one's participation, one's preparedness or one's experience and one's perception of the competency (abilities & skill levels) of the opponents determines ones state anxiety levels.

Basketball is known as one of the fastest game in the world. Basketball, like any other sport, is an emotional activity and a cognitive one, in which players have to make decisions or to execute a skill using the knowledge that one already possesses but "are colored by feelings and perceptions of competition".

Purpose of the present investigation, therefore, was to seek answers to the following questions:

i. Do players of losing teams in the earlier rounds show higher levels of cognitive anxiety than the players of winning teams?

ii. Do players of winning teams show increasingly higher levels of cognitive anxiety as they advance towards final round of a tournament?

In the present study the researchers tried to investigate the varying level of state anxiety of a team which progresses through a tournament and enquired into differing levels of anxiety between winners and losers in a tournament.

METHOD

The Ss of the study were 113 male basketball adolescent players, who represented ten High Schools of Dharwad district that participated in a basketball tournament. 'Sports Competitive State Anxiety Inventory – II' (Martens, *et al.,*1990) was administered to the participants 20 minutes prior to their respective matches. The inventory provided scores on state cognitive anxiety, state somatic anxiety and self confidence. In the first round, pre-quarter finals, of the ten-team tournament six teams were given 'bye'. Thus only four teams played the first round. In the second round, i.e. quarter finals, eight teams participated. In the third round, i.e. semifinals four teams and in the finals two teams participated.

RESULTS

Presented below (table 1) are the discriptive statistics of congnitive, somatic anxiety and self confidence and total anxiety of the players prior to their respective matches in respective rounds. Since eight teams participated in the quarter finals we have maximum number of respondents where as only two teams participate in the final round we have minimum number of repondents in the finals. A cursary glance at the total anxiety suggests that the anxiety increases as the players progress through the tournament.

ISSN 2231-5063
ORIGINAL ARTICLE
GOLDEN RESEARCH THOUGHTS

Table -1: Mean and Standard Deviations of Participating Teams

Round	N	Cognitive Anxiety (CA)		Somatic Anxiety (SA)		Self Confidence (SC)		Total Anxiety (TA)	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Pre quarter Finals	40	19.35	3.89	18.07	4.58	25.60	3.89	37.42	7.21
Quarter Finals	91	18.37	5.43	18.09	5.55	25.70	4.95	36.47	9.94
Semi Finals	39	19.02	5.61	16.64	4.53	26.02	5.34	35.66	9.25
Final	22	21.90	3.90	17.72	4.51	24.09	5.05	39.63	6.99
Total	192	19.11	5.11	17.75	5.05	25.56	4.84	36.86	8.99

Presented in the Table – 2 is the summary of ANOVA between four levels of participation, viz., pre-quarter, quarter, semi final and final rounds of the tournament. It may be observed that only the differences in CA between the various levels of the tournament significantly differed whereas none of the other anxiety parameters significantly differed. An examination of post-hoc analysis (Table-3) revealed that cognitive anxiety significantly increased from quarter finals to semi-finals and to finals. The increase in anxiety from quarterfinals to finals appears to be much more than from semi-finals to finals. However, it is surprising to observe that there was no significant change in the somatic anxiety and self-confidence levels.

Table -2: Summary Table of Analysis of Variance between various rounds of the tournament.

	Sources	SS	df	MS	F
Cognitive Anxiety	Between Groups	224.29	3	74.76	2.95
	Within Groups	4759.18	188	25.31	
	Total	4983.47	191		
Somatic Anxiety	Between Groups	63.27	3	21.09	.825
	Within Groups	4804.22	188	25.55	
	Total	4867.49	191		
Self Confidence	Between Groups	57.86	3	19.28	.820
	Within Groups Total	4421.38	188	23.51	
		4479.25	191		
Total Anxiety	Between Groups	251.53	3	83.84	1.03
	Within Groups Total	15206.21	188	80.88	
		15457.74	191		

ISSN 2231-5063
ORIGINAL ARTICLE
GOLDEN RESEARCH THOUGHTS

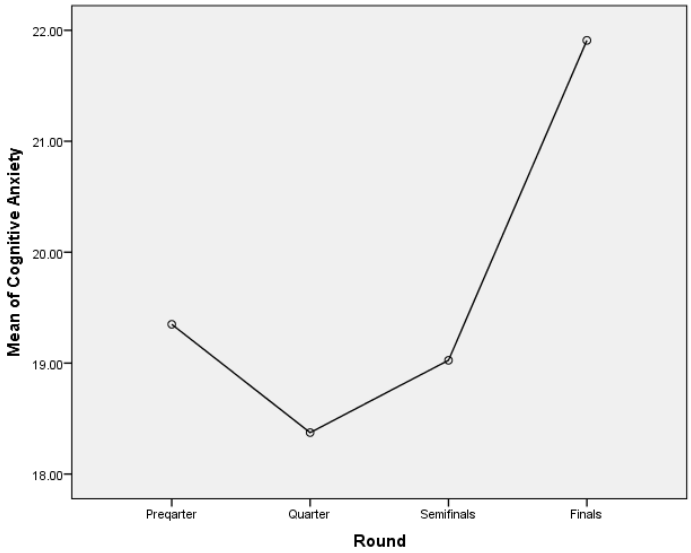

Figure -1: Cognitive anxiety level of players prior to tournament pre-quarter, quarter, semi-finals and final

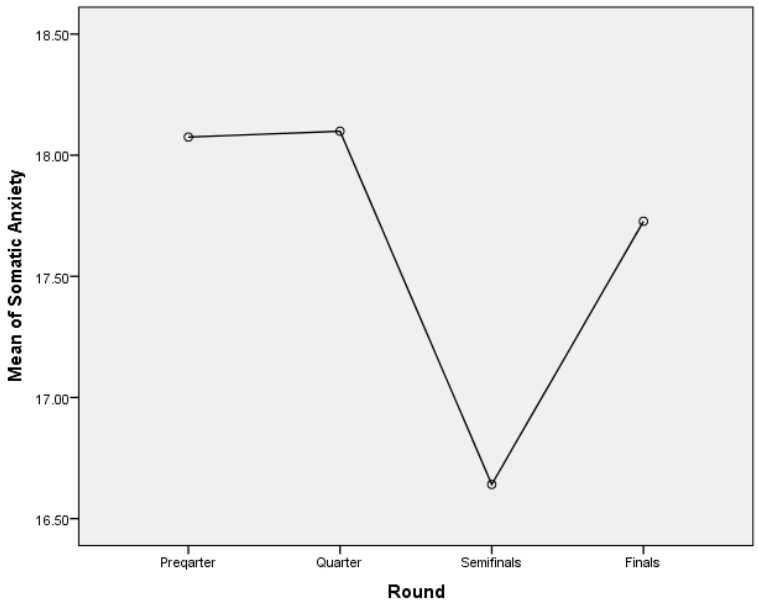

Figure – 2: Somatic anxiety levels of players prior to tournament pre-quarter, quarter, semi-finals and final

ISSN 2231-5063
ORIGINAL ARTICLE
GOLDEN RESEARCH THOUGHTS

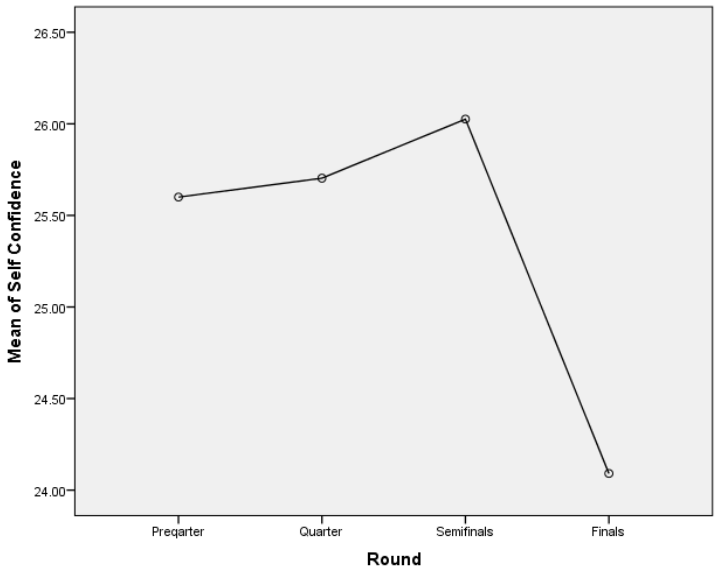

Figure-3: Self-confidence levels of players prior to tournament pre-quarter, quarter, semi-finals and final

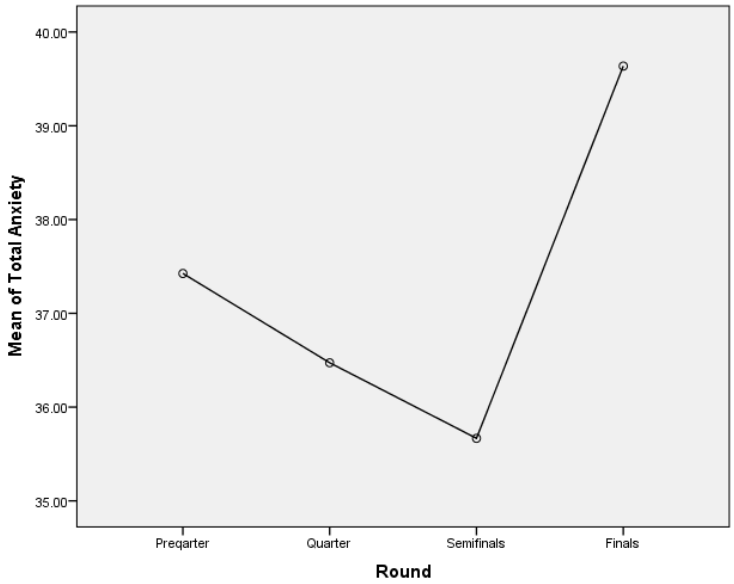

Figure-4: Total anxiety (cognitive + somatic) level of players prior to tournament pre-quarter, quarter, semi-finals and final

DISCUSSION

It may be observed in Figure-1 that the teams (4-teams) that entered the first round (pre-quarter) had higher cognitive anxiety than those which entered the quarterfinals (not significant). Perhaps the four teams that entered the tournament without any bye in the first round were anxious on account of lack of acquaintance with the environment and the opponent teams. Upon completion of the first round, all the teams because of the time they spent during the first two matches got

themselves acquainted with the environment, thus entered the second round with less cognitive anxiety. Perhaps this particular anxiety level might have contributed to the significant increase in cognitive anxiety before the finals. Although the cognitive anxiety increased before the semifinals, it was not significant. However, prior to the finals the cognitive anxiety increased dramatically. Perhaps both teams that entered the final round, perceived the situation as more threatening. The trends in somatic anxiety and self-confidence, though not significant, also reiterate what is said earlier. It is therefore, concluded that while both cognitive and somatic anxieties increase, the confidence levels decrease.

RECOMMENDATIONS

In view of the state anxiety, which can be controlled, it is recommended that the coaches realize this and take necessary measures to regulate the levels of anxiety of their players during a tournament for success.

i. The coaches themselves have to maintain their psychological composure, which should reflect in their body language during the tournament.

ii. The coaches should know the theory and practice regarding the techniques of relaxation and help their players to physically relax and thereby reduce somatic anxiety.

iii. Further, it is recommended to investigate the interaction effects of trait anxiety and state anxiety on performance in a tournament.

References

1. Apter, M. J. (1982). The experience of motivation: The theory of psychological reversals. London: Academic Press.
2. Burton, D., & Naylor, S. (1997). Is anxiety really facilitative? Reaction to the myth that cognitive anxiety always impairs sport performance. Journal of Applied Sport Psychology, 9, 295–302.
3. Eysenck, M. W., & Calvo, M. G. (1992). Anxiety and performance: the processing efficiency theory. Cognition and Emotion, 6, 409–434.
4. Gould, D., Eklund, R. C., & Jackson, S. A. (1992a). 1988-U.S. Olympic wrestling excellence: I. Mental preparation, precompetitive cognition, and affect. The Sport Psychologist, 6, 358–382.
5. Gould, D., Eklund, R. C., & Jackson, S. A. (1992b). 1988 U.S. Olympic wrestling excellence: II. Thoughts and affect occurring during competition. The Sport Psychologist, 6, 383–402.
6. Hanin, Y., & Syrja¨, P. (1995a). Performance affect in junior ice hockey players: an application of the individual zones of optimal functioning model. The Sport Psychologist, 9, 169–187.
7. Hanin, Y., & Syrja¨, P. (1995b). Performance affect in soccer players: an application of the IZOF model. International Journal of Sports Medicine, 16, 264–269.
8. Hardy, L., & Parfitt, C. G. (1991). A catastrophe model of anxiety and performance. British Journal of Psychology, 82, 163–178.

ISSN 2231-5063
ORIGINAL ARTICLE
GOLDEN RESEARCH THOUGHTS

9. Hardy, L., Parfitt, C. G., & Pates, J. (1994). Performance catastrophes in sport: a test of the hysteresis hypothesis. Journal of Sports Sciences, 12, 327–334.
10. Jones, G. (1995). More than just a game: research developments and issues in competitive anxiety in sport. British Journal of Psychology, 86, 449–478.
11. Jones, G., & Hanton, S. (2001). Pre-competitive feeling states and directional anxiety interpretations. Journal of Sports Sciences, 19, 385–395.
12. Jones, G., & Swain, A. B. J. (1992). Intensity and direction dimensions of competitive state anxiety and relationships with competitiveness. Perceptual and Motor Skills, 74, 467–472.
13. Kerr, J. H. (1997). Motivation and emotion in sport. East Sussex: Psychology Press. Psychology of Sport and Exercise 5 (2004) [2]