

A Comparative Study for Pre and Post Competition Anxiety Levels for Male and Female Basket Ball Juniors

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Abstract

The present study compares the pre-competition and post-competition anxiety for basketball male and female junior players. A group of 30 players (15 males and 15 females with age group of 15 - 18) were selected - from several clubs who are participating regularly in the local federation's junior championships - through purposive sampling technique. Data were collected from athletes using a Sports Competitive Anxiety Test "SCAT". The result of the study reveals that there was significant difference in 0.01 levels of pre-competitive anxiety and post-competitive anxiety among the male and female inter-university basketball players. The researcher recommends using advanced mental training to increase the players' self-confidence and decrease the level of their pre and post competition anxiety which in turn will be reflected on their performance positively.

Keywords: Basketball juniors, competition, anxiety, SCAT, sports.

Introduction and research problem

The stressful nature of elite sport, and the competitive environment surrounding it, places many demands on participating athletes (Jones, 1995). The examination of athlete's behavioral, and emotional responses to such stressors has developed into a focal area of sport psychology with many researchers interested in assessing anxiety responses of athletes to competitive events (Woodman & Hardy, 2001)

Competition can cause athletes to react both physically (somatic) and mentally (cognitive) in a manner which can negatively affect their performance abilities. Stress, arousal and anxiety are terms used to describe this condition. The major problem in competition is letting your mind work against you rather than for you. You must accept anxiety symptoms as part of the competition experience; only then will anxiety begin to facilitate your performance. There have been many theories that tried to explain the process of sports' competition anxiety as:

1. Drive Theory: According to the Drive Theory (Zajonc 1965) if an athlete is appropriately skilled then it will help them to perform well if their drive to compete is aroused - they are "psyched up".

2. Inverted-U hypothesis: An alternative approach to Drive Theory is known as the Inverted-U hypothesis (Yerkes 1980) that predicts a relationship between arousal and performance approximates to an inverted U shape. The theory is that as arousal is increased then performance improves but only up to a certain point (top of the inverted U). If the athlete's arousal is increased beyond this point then performance diminishes.

3. Multi-dimensional Anxiety Theory: Multi-dimensional Anxiety Theory (Martens 1990) is based on the distinction between cognitive anxiety and somatic anxiety. The theory makes a series of predictions:

- There will be a negative but linear relationship between cognitive anxiety and performance
- There will be an inverted U relationship between somatic anxiety and performance
- Somatic anxiety should decline once performance begins but cognitive anxiety may remain high if confidence is low

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4. Catastrophe Theory: Catastrophe Theory (Hardy 1987) suggests that stress and anxiety will influence performance as follows:

- Each athlete will respond in a unique way to competitive anxiety
- Performance will be effected in a unique way which may be difficult to predict using general rules

5. Optimum Arousal Theory: According to the Optimum Arousal Theory (Hanin 1997) each athlete will perform at their best if their level of arousal or competitive anxiety falls within their optimum functioning zone. The challenge for the coach is to determine the athlete's zone and identify the techniques that will place the athlete in this zone prior to competition.

It has been recognized for many years that psychological factors, in particular anxiety, play an important role in competition (Lizuka, 2005). Competitive sports can make even the world's most successful athlete feel nervous. Many factors such as expectations, perfectionism, fear of failure, lack of confidence induce feelings of anxiety in athletes (Moran, 2004). In sport psychology, anxiety refers to an unpleasant emotion which is characterized by vague but persistent feelings of apprehension and dread (Cashmore, 2002). Anxiety consists of two subcomponents, namely cognitive and somatic anxiety, which influence performance before and during competition (Martens et al., 1990; Lazarus, 1991; Weinberg & Gould, 1999; Jarvis, 2002; Anshel, 2003).

Meanwhile, cognitive is the mental component, which is characterized by negative expectations about success or self-evaluation, negative self-talk, worry about performance, images of failure, inability to concentrate, and disrupted attention (Martens et al., 1990; Jarvis, 2002). The somatic is the physiological element which is related to autonomic arousals, and negative symptoms such as feelings of nervousness, high blood pressure, dry throat, muscular tension, rapid heart rate, sweaty palms, and butterflies in the stomach (Martens et al., 1990; Jarvis, 2002). Sport is littered with the negative experience of losing for those who wavered when they most needed to be in control of themselves and focused on the task at hand.

Anxiety can be recognized on three levels (Karageorghis 2007):

- Cognitive - by particular thought process (as Indecision - Sense of confusion - Feeling heavy - Negative thoughts - Poor concentration - Irritability - Fear - Forgetfulness - Loss of confidence - Images of failure - Defeatist self-talk - Feeling rushed - Feeling weak - Constant dissatisfaction - Unable to take instructions - Thoughts of avoidance)
- Somatic - by physical response (as Increased blood pressure - Pounding heart - Increased respiration rate - Sweating - Clammy hands and feet - Butterflies in the stomach - Adrenaline surge - Dry mouth - Need to urinate - Muscular tension - Tightness in neck and shoulders - Trembling - Incessant talking - Blushing - Pacing up and down - Distorted vision - Twitching - Yawning - Voice distortion - Nausea - Vomiting - Diarrhea - Loss of appetite - Sleeplessness - Loss of libido)
- Behavioral - by patterns of behavior (as Biting fingernails - Lethargic movements - Inhibited posture - Playing safe - Going through the motions - Introversion - Uncharacteristic displays of extroversion - Fidgeting - Avoidance of eye contact - Covering face with hand)

It seems not so relevant to study post-competition anxiety but as De Soza et al (2010) described in their study for the relationship between levels of competitive anxiety and age of volleyball athletes and analyze of these levels pre and post-competition that the level of post competition anxiety might be an indicator for the level of controlling this anxiety based on individual differences between players and it might decline slightly during the game to reach lowest level by the end of the competition. Others may tend to keep high levels of anxiety due to their negative thoughts and poor self-control.

When a competitor 'freezes' in the big moment or commits an inexplicable error, anxiety, in one of its many guises, is very often the root cause. The precise impact of anxiety on sporting performance depends on how you interpret your world. Unfortunately, far too many athletes

accept high levels of anxiety as an inevitable part of the total sporting experience and fail to reach their potential.

Research aim

This study aims for:

1. Comparing between the levels of pre and post competition anxiety for male basketball juniors.
2. Comparing between the levels of pre and post competition anxiety for female basketball juniors.
3. Comparing the levels of competition anxiety between mail and female basketball juniors.

Research hypothesis

1. The presence of significant differences between the level of pre and post competition anxiety for male basket ball juniors.
2. The presence of significant differences between the level of pre and post competition anxiety for male basket ball juniors.
3. The presence of significant differences between the level of pre and post competition anxiety for male and female basket ball juniors.

Material and Methods

To achieve the purpose of the study, the descriptive survey method was applied on a group of 30 basketball players (boys = 15 and girls = 15) were selected from several clubs who are participating regularly in the local federation's junior championships through purposive sampling technique. Their age ranged from 15 to 18 years. Sports Competition Anxiety Test - (SCAT) "Annex 1", an evaluation that measures the competitive

anxiety levels of athletes (Marten et al., 1990), was used to measure the anxiety level of basketball players prior to and after an important game.

According to De Soza et al (2010) SCAT test was proved reliable and valid for junior level team competitors.

Marten (1990) developed anxiety traits (A-trait) questionnaires that were tailored specially to sport known as the Sport Competition Anxiety Test (SCAT). Marten (1990)[3] recognised that any measure of sport anxiety must take into consideration cognitive anxiety (negative thoughts, worry) and somatic anxiety (physiological response). The Competitive State Anxiety Inventory or CSAI-2 takes into account the difference between A-state and A-trait and distinguishes between cognitive and somatic anxiety.

The (SCAT) test consists of fifteen items which include 5 spurious items, 8 positive items and 2 negative items. The odd-even reliability of the test in the present study was found to be .80. The lowest possible score on this test and the highest possible score is 27. A low score indicates higher anxiety and a high score indicates low anxiety. The paired t-test was used to test the difference of level of anxiety between pre and post completion. The significance level was determined as $p < 0.01$.

Results

Table 1 reveals that the mean scores of pre-competitive and post-competitive anxiety of male basketball junior players are 24 and 19.47 respectively. The t-value is 7.01 which were significant at 0.01 level of confidence which indicates that there is significant difference between the 2 groups.

*Table (1)
The pre-competitive and post-competitive anxiety of male Basketball junior players*

Group	Mean	Variance	df	"t" value
Pre competition anxiety	24	7.29	14	7.01*
Post competition anxiety	19.47	7.84		P > 0.01

**Significant at 0.01 level*

*Figure (1)
The pre-competitive and post-competitive anxiety of male Basketball junior players*

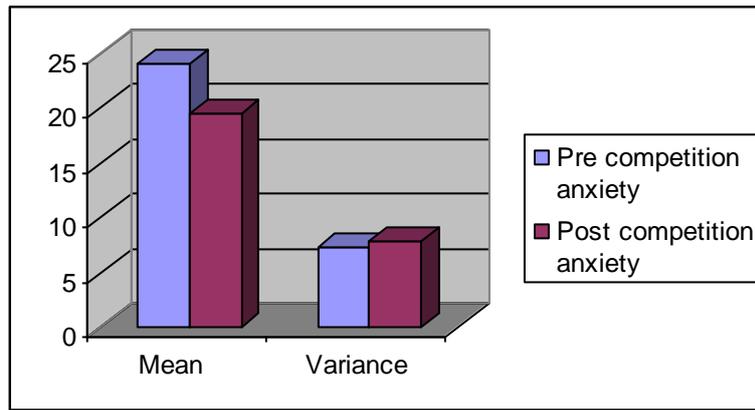
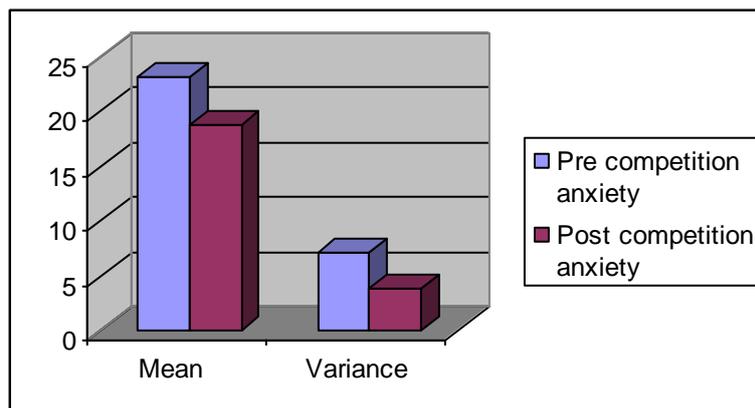


Table (2)
The pre-competitive and post-competitive anxiety of female Basketball junior players

Group	Mean	Variance	df	"t" value
Pre competition anxiety	23.13	7.12	14	8.60*
Post competition anxiety	18.80	3.89		P > 0.01

**Significant at 0.01 level*

Figure (2)
The pre-competitive and post-competitive anxiety of female Basketball junior players



The inspection of Table 2 indicates the mean scores of pre competitive and post competitive anxiety of female basketball junior players are 23.13 and 18.80 respectively. The t-value is 8.60 which was significant at 0.01 level of confidence.

Discussion

Different research results imply that competitive anxiety is the source of decrease in performance especially in amateur athletes. Elite athletes by controlling their competitive anxiety through mental skills (such as imagination, feeling control) have higher motivation and self-confidence, but amateur ones experience weak performance through an increase in anxiety during competitions. In the present research players had an average level of competitive

anxiety and anger before competitions. Our results indicated a significant difference in all pre-competition anxieties between male and female basketball junior players.

In an investigation into the effects of competitive anxiety and self-confidence on individual and team-based athletes, Eric (1996) reported that no significant relationship between male and female athletes in competitive anxiety and self-confidence level. But when they were investigated based on the nature of sport field (individual and group-based), it became clear that female athletes had higher cognitive and somatic anxiety and lower self-confidence compared to male ones.

These results are consistent with the results of the present research. Different competitive anxiety and anger levels may depend on the

level and the rank at which the competitions are held, but this research did not investigate these variables. Most psychologists believe that the highest level of competitive anxiety will deteriorate athletes' performance in sport (Martens et al., 1990; Weinberg & Gould, 1999; Ortiz, 2006). On the contrary, a lower level of anxiety was found to enhance the level of performance of athletes (Martens et al., 1990; Krane & Williams, 1994).

On the other hand, athletes with low levels of skill, like those whose highest achievement is taking part in school competitions, normally experience higher levels of competitive anxiety. Meanwhile, those athletes whose highest achievement is taking part in national or state level competitions, experienced low levels of anxiety. It is very common that low level skilled.

In the present study the pre-competitive anxiety was higher than the Post-competitive anxiety for female basketball junior players which is quiet normal and that agrees with all other related academic researches as the findings supported by Evans (1983) who examined the acute response of female basketball players and anxiety to competitions.

The results of the study were that pre competitive level of anxiety in basketball female junior players is higher and post competitive anxiety in basketball female junior players is low. In male basketball junior players the pre-competitive level of anxiety was higher than post competitive anxiety and the findings are in supportive of previous reports (Boutin, 1983; Singh, 1986).

Conclusion

The present study has certain limitations that need to be taken into account when considering the study and its contributions. Since the level of anxiety after the competition is not related to the athletes' performance, this study merely focused on the level of anxiety pre and post competitions only. Based on the current results, it is recommended that sport psychologists, sport counselors, and coaches use the findings to design appropriate training programs to help athletes acquire suitable coping strategies so as

to reduce their anxiety levels and enhance their performance.

Recommendations

As we can see anxiety includes state and trait dimensions both of which can show themselves as cognitive and somatic symptoms. An athlete with high anxiety trait (A-trait) is likely to be more anxious in stressful situations. To help the athlete control competitive anxiety somatic techniques (relaxation) and cognitive techniques (mental imagery) can be used to reduce the levels of either pre or post competition anxiety and raise the level of self confidence which will be reflected on performance positively.

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