



ISSN: 2456-0057  
IJPNE 2019; 4(1): 352-354  
© 2019 IJPNE  
[www.journalofsports.com](http://www.journalofsports.com)  
Received: 17-01-2019  
Accepted: 20-02-2019

**Sudhir Malik**  
Research Scholar, Department of  
Physical Education (T), Guru  
Nanak Dev University,  
Amritsar, Punjab, India

**Dr. Baljinder Singh Bal**  
Assistant Professor, Department  
of Physical Education (T), Guru  
Nanak Dev University,  
Amritsar, Punjab, India

**Dr. Amandeep Singh**  
Assistant Professor, Department  
of Physical Education (T), Guru  
Nanak Dev University,  
Amritsar, Punjab, India

## Effects of progressive muscle relaxation technique, autogenic training and pranayama training program on competitive state anxiety

**Sudhir Malik, Dr. Baljinder Singh Bal and Dr. Amandeep Singh**

### Abstract

**Aim:** The purpose of this study was to find out the significant effects of Progressive Muscle Relaxation Technique, Autogenic Training and Pranayama Training Program on "Competitive State Anxiety".  
**Background:** Competitive anxiety should be viewed in two dimensions; trait and state anxiety. State anxiety may be conceptualized as a transitory emotional state or condition of human organism that varies in intensity and fluctuates overtime. This condition is characterized by subjective, consciously perceived feeling of tension, apprehension and activation of the autonomic nervous systems. It is an immediate or "right now" emotional response that can change from moment or situation to the next. Trait anxiety is ingrained in a person's personality and the individual with this disorder tend to view the world as a dangerous and threatening place.

**Methods:** The present study appraises forty five (N=45) female subjects between the age group of 20 to 28 years. The subjects were chosen from the Department of Physical Education (Teaching) Guru Nanak Dev University, Amritsar, Punjab, India. The subjects were further subjected to 8-week training (viz., n<sub>1</sub>= 15; Progressive Muscle Relaxation Technique), (n<sub>2</sub>= 15; Autogenic Training) and (n<sub>3</sub>= 15; Pranayama Training).

**Sampling:** Purposive sampling, also known as (judgmental sampling), is a type of non-probability sampling technique were selected for the purpose of this investigation.

**Statistical Analysis:** The Statistical Package for the Social Sciences (SPSS) version 26 was used for all analyses. The differences in the mean of each group for selected variable were tested for the significance of difference by Analysis of Covariance (ANCOVA).

**Results:** Analysis of Covariance (ANCOVA) among "Between Groups" and "Within groups" depicted the insignificant difference with regard to the variable Sports Competitive Anxiety" among three experimental groups i.e., comprising of Progressive Muscle Relaxation Training, Autogenic Training and Pranayam Training since the P-value (Sig.) .900 was found greater than the 0.05 level of significance ( $p > 0.05$ ).

**Keywords:** Competitive state anxiety, progressive muscle relaxation technique, autogenic training and pranayama training

### Introduction

Research is needed to be done in all areas of studies to progress in various fields of sports. Psychological studies is one of this areas which examine the psychological conditions of athletes, the effect of environmental conditions and the interact of these to sport's performance (Arvin, H., 2007) [1].

Since this time, sport psychology has experienced a rapid growth in global popularity, both as an applied practice and also as an academic pursuit. Significant advancements in our understanding of the relationship between mental skills and athletic performance have been made over this time period, with a robust body of knowledge supporting its applied use in the area of performance enhancement. Yet, despite this rapid growth and scientific progress, a large segment of the sporting community still appears to be hesitant and skeptical with respect to soliciting the services of a certified sport psychologist (Anderson, Hodge, Lavallee, & Martin, 2004; Ferraro & Rush, 2000; Mainar, Curry, Sommers-Flanagan, & Walsh, 2001; Martin, Kellmann, Lavallee, & Page, 2002) [2, 3, 4, 5].

**Corresponding Author:**  
**Sudhir Malik**  
Research Scholar, Department of  
Physical Education (T), Guru  
Nanak Dev University,  
Amritsar, Punjab, India

Above and beyond the misconception that sport psychologists are simply “shrinks,” the single largest barrier under the control of the sport psychologist is the clarity and understanding of the services being proposed (Pain & Harwood, 2004) [6]. In all cases where athletes or coaches have been asked about their attitudes toward seeking out the services of a sport psychologist, a general lack of understanding has been cited (Brooks & Bull, 1999; Gardner, 2001; Martin, 2005; Martin *et al.*, 2001; Ravizza, 1988; Van Raalte, Brewer, Matheson, & Brewer, 1996; Zakrajsek & Zizzi, 2007) [7, 8, 9, 4, 11, 12, 13].

As we know that competition is a social process that takes place when prizes are given to people on the basis of the comparison of their performance with the performance of others participating in the same event (Coakley, 1994) [14]. In sport, pre-competitive anxiety refers to an unpleasant emotion which is characterized by imprecise but persistent feeling of uneasiness and fear before competition. Anxiety is a reaction to impending danger: real or imaginary. It contains of two subcomponents, namely cognitive (mental) and somatic (physiological), which influence the performance before and during competition.

Cognitive is the mental component, characterized by negative expectation about success or self-evaluation, negative self-talk, inability to cope, worry about performance, fear of failure, inability to concentrate and attentional narrowing (Jervis, 2002) [15]. Worry is identified as a defining characteristic of trait anxiety that is, players who are prone to experiencing anxiety have a tendency to worry because they have an attentional disposition to observe situational threats (e.g., Mathews, 1990) [16].

## Methods

### Subjects

The present study appraises forty five (N=45) female subjects between the age group of 20 to 28 years. The subjects were chosen from the Department of Physical Education (Teaching) Guru Nanak Dev University, Amritsar, Punjab, India. The subjects were further subjected to 8-week training (viz., n<sub>1</sub>= 15; Progressive Muscle Relaxation Technique), (n<sub>2</sub>= 15; Autogenic Training) and (n<sub>3</sub>= 15; Pranayama Training).

### Procedure

#### Sports Competition Anxiety Test (SCAT)

Sports Competition Anxiety Inventory, the tool used was adult form of Sports Competition Anxiety Test (SCAT) developed by Martens (1977) to measure an subject's level of competitive anxiety. The test consists of 15 statements related to competitive situation, which the athlete answers by making a tick mark (✓) corresponding the ‘hardly ever’, ‘sometimes’ or- ‘often’ for each item. Five items are spurious. Therefore, only ten items were scored to yield a competitive anxiety measures. Before giving them the test, the investigator instructed them as follows; below are some statements about how persons feel when they compete in sports and games. Read each statement and decide if you ‘hardly ever’ or ‘sometimes’ or ‘often’ feel this way when you compete in sports, games or in athletics. According to your choice tick mark (✓) the statement. There is no right or wrong answers. Do not spend too much time on any one statement. Remember to choose the word that describes how you usually feel when competing in sports and games or in athletic events. The levels of anxiety recommended for Adult athletes are as follows:-

The levels of anxiety recommended for Adult athletes are as follows

Sr. No.	Range of Scores	Interpretation
1.	1—10	Low Anxiety level
2.	11 — 20	Optimum Anxiety Level
3.	21 —25	Above average anxiety level
4.	Above 25	Extreme Anxiety level

### Reliability and Validity

Martens, (1977) reported that test-retest reliability was .77 across age, sex, and time. The internal consistency for the form A (Adult) was found to be .96.

### Method of Scoring

The procedure for scoring SCAT was as follows:-

For each item one of three responses are possible: (a) Hardly ever, (b) sometimes, and (c) often. The 10 test items awarded scores were 2, 3, 5, 6, 8, 9, 11, 12, 14, and 15. The spurious items 1, 4, 7, 10 and 13, were not scored. Items 2, 3, 5, 8, 9, 12, 14 and 15 are worded so that they were scored according to the following key:

1. = Hard ever
2. = Sometimes
3. = Often

Items 6 and 11 were scored according to the following key:-

1. = Often
2. = Sometimes
3. = Hardly ever

If a person deleted 1 of the 10 items, his prorated full scale score was obtained by computing the mean score for the 9 items answered, multiplying this value by 10. If two or more items were omitted, the respondent's questionnaire was invalidated. The range of scores on SCAT is from 10 (Low competitive A-trait) to 30 (high competitive A-trait).

### Sampling

Purposive sampling, also known as (judgmental sampling), is a type of non-probability sampling technique were selected for the purpose of this investigation.

### Statistical Analysis

The Statistical Package for the Social Sciences (SPSS) version 26 was used for all analyses. The differences in the mean of each group for selected variable were tested for the significance of difference by Analysis of Covariance (ANCOVA).

### Results

**Table 1:** Analysis of Covariance (ANCOVA) Results among three Experimental Groups with regard to Sports Competitive Anxiety.

Source of Variation	Sum of Squares	Degree of Freedom	Mean Square	F-Value	P-Value (Sig.)
Between Groups	4.003	2	2.002	.106	.900
Within Groups	777.022	41	18.952		
Total	21659.00	45			

\*Significant at 0.05  
F0.05 (2, 45)

It became evident from table-1 given above that on the basis of Analysis of Covariance (ANCOVA) among “Between Groups” and “Within groups” depicted the insignificant difference with regard to the variable Sports Competitive Anxiety among three experimental groups comprising of Progressive Muscle Relaxation Training, Autogenic Training and Pranayam Training since the P-value (Sig.) .900 was found greater than the 0.05 level of significance ( $p > 0.05$ ). But the F-value (3.20) was found insignificant, therefore, Post-hoc test was not required.

### Conclusion

**Competitive State Anxiety:** Analysis of Covariance (ANCOVA) among “Between Groups” and “Within groups” depicted the insignificant difference with regard to the variable Sports Competitive Anxiety among three experimental groups comprising of Progressive Muscle Relaxation Training, Autogenic Training and Pranayam Training since the P-value (Sig.) .900 was found greater than the 0.05 level of significance ( $p > 0.05$ ).

### References

1. Arvin H. Proceeding of the 1st International Islamic world science & sport conference, 2007.
2. Anderson AG, Hodge KB, Lavallee D, Martin SB. New Zealand athletes' attitudes towards seeking sport psychology consultation. *New Zealand Journal of Psychology*. 2004; 33:129-136.
3. Ferraro T, Rush S. Why athletes resist sport psychology. *Athletic Insight*. 2000; 2:9-14.
4. Mainar SD, Curry LA, Sommers-Flanagan J, Walsh JA. Student athlete preferences in seeking help when confronted with sport performance problems. *Sport Psychologist*. 2001; 15:205-233.
5. Martin SB, Kellmann M, Lavallee D, Page SJ. The development and psychometric evaluation of the Sport Psychology Attitudes–Revised form: A multiple group investigation. *Sport Psychologist*. 2002; 16:272-290.
6. Pain MA, Harwood CG. Knowledge and perceptions of sport psychology within English soccer. *Journal of Sport Sciences*. 2004; 22:813-826.
7. Brooks JE, Bull SJ. Perceptions of the sport psychologist by female university athletes. *Journal of Sport Sciences*. 1999; 17:205-212.
8. Gardner FL. Applied sport psychology in professional sports: The team psychologist. *Professional Psychology: Research and Practice*. 2001; 1:34-39.
9. Martin SB. High school and college athletes' attitudes toward sport psychology consulting. *Journal of Applied Sport Psychology*. 2005; 17:127-139.
10. Martin SB, Akers A, Jackson AW, Wrisberg CA, Nelson L, Leslie PJ *et al.* Male and female athletes' and non-athletes' expectations about sport psychology consulting. *Journal of Applied Sport Psychology*. 2001; 13:18-39.
11. Ravizza K. Gaining entry with athletic personnel for season-long consulting. *Sport Psychologist*. 1988; 2:243-254.
12. Van Raalte JL, Brewer DD, Matheson H, Brewer BW. British athletes' perceptions of sport and mental health practitioners. *Journal of Applied Sport Psychology*. 1996; 8:102-108.
13. Zakrajsek RA, Zizzi SJ. Factors influencing track and swimming coaches' intentions to use sport psychology services. *Athletic Insight*. 2007; 19:1-21.
14. Coakley JJ. Issues and Controversies. *Sport in Society*. St Louis: C.V. Mosby, 1994.
15. Jarvis M. *Sports Psychology*. Routledge, London, 2002.
16. Mathews A. Why worry? The cognitive function of anxiety. *Behaviour Research and Therapy*. 1990; 28:455-468.