



# The Effectiveness of Progressive Muscle Relaxation to Reduce the Intensity of Competitive Sport Anxiety among the elite Players Football

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## Abstract

*The study aims to determine the effectiveness of the muscle relaxation program in reducing anxiety and action strategy to deal with the anxiety according to the program guide to the alleviation, their impact on the elite players in the football program and train and prepare to relax muscular progressive football players. The researcher used the experimental method to sample control and experimental group with the participation of 16 players from the elite players. The researcher used the Competitive Sport Anxiety Inventory, Martens 1990 and also training program for the progressive muscle relaxation. And use the SPSS statistical processing; the results of the study, are; no statistically significant differences between the control and experimental groups in the post-test; the results also led to a lack of statistically significant differences between the post-test and post-test delayed to the control group, while there are no statistically significant differences between the post-test and post-test delayed experimental group; this means that the degree of anxiety competition remained almost on the same token, despite the end of the Training ; this means that the degree of competition anxiety remained the same despite the end of the follow-up period and this means that the experimental group retained the impact of relaxing the applicable*

**Keywords:** Progressive muscle relaxation, competitive anxiety.

## Introduction

Mental training of studies that took a large area in sports psychology; among those mental skills we find the style of progressive muscle relaxation, which is one of the methods that has received considerable attention because of their impact in alleviating stress and anxiety, fear and acquire the skill to control the various tensions and adapt comfortably.

The competitive sport anxiety as defined by the study of competitive stress and anxiety in sport has been hindered by a lack of consistency in the use of key terms Burton, Gould, Hardy, Jones, Jones and Hardy, Woodman and Hardy. For example, stress has often been used interchangeably to describe a stimulus or a response of a person-environment interaction.

This is despite there being a clear conceptual distinction between the terms 'stressor' and 'strain' Beehr, Beehr and Franz, Fletcher, Hanton and Mellalieu, this volume. 'Stressors' refer to events, situations or conditions, while 'strain' describes an individual's negative response to stressors; In the sporting arena, performers encounter a variety of competitive demands and react in different ways<sup>1</sup>, so muscular relaxation is the key to access to the best of ways; including the maximum extent permitted by the capacity of the individual and the economy of time and money. One such strategy is progressive relaxation training -PRT-, a set of methods that originated in the 1930s in the writings of Edmund Jacobson 1934 , 1938<sup>2</sup>, many researchers have pointed out the importance of using relaxation training by mental visualization is more effective than the use of all skill

alone. It is also able to relax during the individual from directing his attention to the work that will be done in any case with the attention to relax and this is the crux of our study among previous studies, we find studied by Hairul, The Effects of Progressive Muscle Relaxation and Autogenic Relaxation on Young Soccer Players' Mood States. These two relaxation techniques induce equivalent mood responses and may be used to regulate young soccer players' mood states<sup>3</sup>, and studied by Ali Pouladi, investigation of the effectiveness of progressive muscle relaxation and imagery in reducing anxiety in athletics, decrease anxiety; in this field, muscle relaxation methods are more efficient in decline somatic anxiety; as the whole, according to the findings of this research, we should start psychological probations from childhood. Future researches can determine more perspectives in this field<sup>4</sup>.

The results of the study also, He also studied Bagherpour 2012 , Effects of Progressive Muscle Relaxation and Internal Imagery on Competitive State Anxiety Inventory – 2R among Taekwondo Athletes, the results revealed significant difference in somatic anxiety in Malaysia. In somatic, cognitive anxiety and self confidence significant difference was found between experimental groups. Hence, it is concluded that these two techniques have effects on reduce somatic and cognitive anxiety and increase self confidence in Malaysian and Iranian taekwondo players<sup>5</sup>, he also studied Adeyeye, effect of progressive muscle relaxation training and positive self- talk techniques on coping with pain from sports injuries among students of university of Lagos Nigeria The research was able to

reveal that athletes are in dire need of pain management education especially in the rehabilitation of injured athletes<sup>6</sup>, He also studied by navaneethan, effect of progressive muscle relaxation training on competitive anxiety of male inter collegiate volley ball Plyers.

The present study is mainly concerned with volleyball players who participated in the high level competition. The result of study reveals that there was significant difference in 0.05 levels of competitive anxiety among the male inter-collegiate volleyball players<sup>1</sup>. In light of the reviewed literature and discussion of inconsistency in prior studies the following hypotheses were formulated:

**Research Hypotheses:** H1 : No statistically significant differences between the control and experimental groups in the pretest. H2: There are significant differences between the experimental and control groups in the post-test differences in favor of the experimental group. H3: The effectiveness of progressive muscle relaxation to reduce competitive sport anxiety continues after the follow-up period of the training program. i. Test of significance differences between the post-test and post-test delayed experimental group. ii. Test of significance differences between the post-test and delayed test of the control group.

**Methodology**

**Study Approach:** The researcher used the experimental method  
**The study sample:** The purpose of the study was to find out the effect of progressive muscle relaxation training on competitive anxiety of male foot ball players.

To achieve the purpose of the study N=14 males were selected from ASO chlef club 2013/2014 season, The research sample of N=7 players made up an experimental and control group.

**Tool Used In The Study: Competitive Sport Anxiety Inventory:** Competitive sport anxiety was assessed by using the Competitive Sport Anxiety Inventory - 2 CSAI-2, Martens 1990,consisting of Twenty-seven items mohamed hassan ellawy translation into Arabic<sup>7</sup>.

**Description of Competitive Sport Anxiety Inventory:** The competitive sport anxiety inventory is scored by computing a separate total for each of the three subscales with scores ranging from a low of 9 to a high of 36. The higher the score, the greater the cognitive or somatic, A-state or the greater the state self-confidence. Total score for the inventory is not computed.

The cognitive state anxiety is scored by totaling the responses for the following 9 items 1, 4, 7,10,13,16,19, 22 and 25. The somatic state anxiety subscale is scored by adding the responses to the following 9 items: 2, 5, 8,11, 14, 17, 20, 23 and 26.

Scoring for item 14 must be reversed in calculating the score for the somatic state anxiety subscale as indicated below. 1 = 4, 2 = 3, 3 = 2, 4 = 1. The state self-confidence subscale is scored by adding the following items 3, 6, 9,12,15,18, 21, 24, and 27. Inventories that are missing no more than one response per subscale can still be scored, but any inventory in which two or more items from any one subscale are emitted should be invalidated. To obtain subscale scores when an item has been omitted, compute the mean item score for the eight answered items, multiply tiis value by Nine, and then round the product to the nearest whole number<sup>8,9</sup>.

**Reliability of Data:** The reliability of data was ensured by establishing the instrument reliability, tester reliability, tester competency, and reliability of tests.

**Test and Retest method:** The first application on an exploratory sample of six players test. And who were later excluded from the core sample study. Then re-apply the measure a second time on the same sample after fifteen day from the first application under the same terms and conditions, reached correlation coefficients between the first application and the second application of the dimensions of the scale as follows, as illustrated in the following table -2 :

**Confirm Inventory:** Has been standard on a group of specialists, until the arbitration process to be ready to be applied in the Algerian environment or what is known as virtual honesty

**Progressive muscle relaxation program:** The program has been prepared progressive relaxation proposed by the researcher in training modules. After returning to the literature and previous studies. Related to the search topic. Which identified relaxation sessions program by Jacobson<sup>10</sup>, Ellawy<sup>11</sup>, Ratib<sup>12</sup>, Herve<sup>13</sup> Nicolas R. and johan<sup>14</sup> and Marc<sup>15</sup>.

**Program Description:** The program aims progressive muscle relaxation to achieve the gradual relaxation of the muscles before workouts in preparation for the competition for each of the muscles of the muscle groups

**Table-1**  
**Shows the correlation coefficients of the inventory**

competitive sport anxiety inventory	sample members	OF coefficient of correlations
Contive Anxiety	Six	0.70
Somatic Anxiety		0.65
Selef –Contidence		0.70

**Table-2**  
**the training program content**

Content	Duration
duration of the program	6 weeks
number of sessions	20 training unit
training unit of time	10 minutes
total time for the program	200 minutes =3 hours and 20 minutes

**Table-3**  
**distribution schedule of the training program for the progressive muscle relaxation**

	Objective	Time
the first week	definition of the program and its goals and directives of General	Ten minutes
the second week	reduce the degree and level of tension to the muscles of the hands and forearm	
	reduce the degree and level of tension to the muscles of the neck and shoulders	
the third week	reduce the degree and level of tension to the muscles of the face and jaw	
	reduce the degree and level of tension to the muscles of the hands and forearm and neck, shoulders and face and jaw	
the fourth week	reduce the degree and level of tension to the muscles of the chest and abdomen	
	reduce the degree and level of tension to the muscles of the back	
fif th week	reduce the degree and level of tension to the muscles of the thighs	
	reduce the degree and level of tension to the muscles of the foot and legs	
the sixth week	reduce the degree and level of tension to the muscles of the chest, abdomen and back, thighs, legs and foot	
	reduce the degree and level of tension to the body as a whole	

## Results and Discussion

**Table-4**  
**Significance of Mean between the control and experimental groups in the pretest .**

	Groups	N	Mean	SD	df	T- cal
competitive sport anxiety inventory	Control	07	73.86	4.670	6	0.717
	Experimental	07	72.29	2.98		

\* Significance at 0.05 level

**Table-5**  
**Significance of Mean between the control and experimental groups in the pretest**

	Groups	pre-test		post test		df	T-cal
		Mean	SD	Mean	SD		
competitive sport anxiety inventory	control	72.29	2.98	69.57	11.13	6	0.624
	experimental	73.86	1.76	61.14	8.68	6	3.940*

\* Significance at 0.05 level

**Table-6**  
**Test of significance differences between the post-test and Post test delayed of the control group And also the post-test and post-test delayed experimental group.**

	N	post-test		Post test delayed		df	T-cal
		Mean	SD	Mean	SD		
control groups	07	69.57	11.13	73.86	4.67	6	1.39
experimental group	07	62.71	6.96	61.14	8.68	6	-2.33

\* Significance at 0.05 level.

As you see in the above table-4, The results of the arithmetic average of the control group 73.86 and experimental group 72.29, While the values of T –calculated 0.717, which is less than the values of T –tables 0.717 in and this means there is no statistically significant differences between the two groups.

The results table -5 from the arithmetic mean of the control of the control group results 72.29 and experimental group 73.86, and the values of 0.624 T-calculated is less than the values of T-tabular if there are no significant differences between pre test and posttest for the control group. While the values T-calculated 3.940 is the largest of the values of T –tables the experimental group. If there are significant differences between pre test and post test experimental group There are effective for progressive muscle relaxation in reducing competitive sport anxiety among football players for the experimental group unlike the control group.

After 15 days of completion of the training of progressive muscle relaxation; the redistribution of competitive sport anxiety inventory, the results were also in the table below.

The results table -6 from the arithmetic mean of the control group in the test post test 69.57. Test post test delayed 62.71, While the values T- calculated 1.399 is the values are not statistically significant, considering that the values of T- tabulated values of less than T –calculated.

The results table -6 from the arithmetic mean of the experimental group in the test Post test 73.86 test post test delayed 61.14; the values are -2.33 not statistically significant, considering that the values of T- tabulated values of largest than T-calculated.

This means that the effectiveness of progressive muscle relaxation lasted for a period after completion of the training.

This means that the degree of competition concern remained the same despite the end of the follow-up period. This means that the experimental group retained the impact of relaxing the application

Results of the table 4,5,6 conclude that the progressive muscle relaxation, contributes to reduce the anxiety of the players.

This study also emphasizes the need for psychological preparation for the players to improve their performance and achieve results.

The effectiveness of progressive muscle relaxation continue after the training period, the players learn the progressive muscle relaxation technique; this study supports previous studies from all carried out by Hairul Anuar ,and study by Ali Pouladi, Sayady, Bahrani and Maboud, Bagherpour And Adeyeye , Vipene and Afuye, Navaneethan and Soundara rajan and study Jacobson.

Through the results we conclude that the frequency and included muscle relaxation process achieve positive results at the level of the players and their performance.

## Conclusion

It can be concluded that Results the study confirms the effectiveness of progressive muscle relaxation to reduce the Competitive Sport Anxiety of the players. Relaxation is also the strategy of psychological and preventive mental disorders that may face players during sports competitions, Participants responded positively to the psychological treatment sessions.

Results of the study demonstrated that the effectiveness of the training on the progressive muscle relaxation continue even after the training program period. The current study recommends to i. The need to take into account the psychological aspect in the field of sports. ii. Provide the necessary psychological care for the players before the competition to reduce anxiety, depression, fear and stress. iii. Increase training sessions on various relaxation techniques. iv. Acquisition of trained technical expertise progressive muscle relaxation.

## Reference

1. Mellalieu S.D., Sheldon H. and David F.A., Competitive anxiety review: Recent directions in sport psychology research. New York,: Nova Science Publishers (2009)
2. Bernstein D.A., Borkovec T.D. and Holly Hazlett S., new directions in progressive relaxation training : A guidebook for helping professionals, London: Praeger Publishers (2000)
3. Arabi Hairul Anuar H., The effects of progressive muscle relaxation and autogenic relaxation on young soccer players' mood states, *Asian J. of Sports Medicine*, **2**, 99-105 (2011)
4. Ali Pouladi R., Sayady M., Bahrani R.B. and Maboud O.R., Sayady, Bahrani B. and Maboud. Investigation of the effectiveness of progressive muscle relaxation and imagery in reducing anxiety in athletics, *J.of Basic and Applied Scientific Re*, **3(2)**, 336-339 (2013)
5. Bagherpour T., Hairul A.H., Saha S. and Asok Kumar G., Effects of progressive muscle relaxation and internal imagery on competitive state anxiety inventory – 2r among taekwondo athletes, *Int. proceedings of economics development and research*, **30**, 218-224 (2012)
6. Adeyeye F.M., Vipene J.B. and Afuye. A., A. effect of progressive relaxation and positive self-talk techniques on coping with pain from sports injuries among students of university of lagos, Nigeria, *Edu. Rec Int*, **2(1)**, 48-54 (2013)
7. Ellawy M.H., Psychological tests encyclopedia for the athletes. Cairo: Dar Al-Fikr Al-Arabi (1998)
8. Navaneethan B. and Soundara rajan R., Effect of progressive muscle relaxation training on competitive anxiety of male inter-collegiate volleyball players, *Int. J. of Sports Sci and Engineering*, **4(3)**, 161-164(2010)

9. Lane A.M., Sewell D.F., Terry P.C., Bartram D. and Nesti M.S., Confirmatory factor analysis of the competitive state anxiety inventory-2, *J. of Sports Sci* , **17(6)**, 505-512(1999)
10. Jacobson, Md. E., You must relax: Practical methods for reducing the tensions of modern living. London: Paperback (1976)
11. Ellawy M.H., psychology of the sports groups. Cairo: Dar Al-Fikr Al-Arabi (1998)
12. Ratib O.K., Psychological skills training–applications in the sports field. Cairo: Dar Al-Fikr Al-Arabi (2004)
13. Herve L.D., The sports mental training: How to eliminate the psychological brakes to achieve optimal conditions performance. paris: amphora (2002)
14. Nicolas R. and johan P., the mental préparation in collective sports: Abc afraid the sports coach and the team, paris: Chiron editor (2004)
15. Marc G., Therapeutic relaxation (two ed). paris: hours france (2007)