

Effect of Plyometric Training on Selected Psychological Variables among College Women Basketball Players

Dr. S. Saroja¹ & C. Vijayalakshmi²

¹Assistant Professor, Alagappa University College of Physical Education, Karaikudi, Tamilnadu, India.

²Ph.D., Research Scholar, Alagappa University College of Physical Education, Karaikudi, Tamilnadu, India.

Abstract

The purpose of the study was to seek out the effect of plyometric training on selected psychological variables among college women basketball players. It had been hypothesized that there would be significant differences on selected psychological variables to the effect of plyometric training among college basketball players. For this study the 30 women basketball players from Alagappa University College of Physical Education, Karaikudi, Tamilnadu were selected randomly and their age ranged from 18 to 25 years. The groups were randomly assigned to 2 equal groups of fifteen each and named as Group 'A' and Group 'B'. Group 'A' underwent plyometric training and Group 'B' has not undergone any training. The data was collected before and after twelve weeks of coaching. The info was analyzed by applying dependent 't test. The extent of significance was set at 0.05. The plyometric training had positive impact on anxiety and sports achievement motivation among college women basketball players.

Key words: Plyometric Training, Anxiety, Sports achievement motivation, Basketball.

Introduction

Basketball is pretty physical as a number of the simplest athletes within the world are basketball players but tons of the sport is mental based. Lack of confidence, fear of failure, anxiety, and excitement – are a number of the unique experiences acquired when the players undergo competitions. To win the basketball, one has got to be mentally tougher than physical. Nearly every concern of human endeavor is assumed to be affected somehow by anxiety. Anxiety may be a reaction by a private to a stressful situation, and in competitive sports, an excellent amount of stress are often placed on an athlete's performance. Basketball is that the highly time conscious game. The link between anxiety and performance in sport has been known for an extended time. Stories abound of athletes or teams that performed poorly because they underestimated their opponent or worried themselves out of the sport. Handling anxiety successfully is a crucial characteristic of the elite athlete. Research has shown that the power to deal with pressure and anxiety is an integral part of sports, particularly among elite athletes (Hardy et al. 1996; Orlick & Partington, 1988). This is often also evidenced by the report that quite 50% of consultations among athletes at an Olympic festival were associated with stress or anxiety related problems (Murphy, 1988). As a result of this high link between performance and anxiety, anxiety in athletes has become one among the foremost common topics of sports psychology research. Motivation is an athletes' personal drive to realize their goal. This might be setting a faculty record, winning a race, or defeating a specific opponent. Research has shown the link between extremely high levels of motivation and therefore the achievement of elite status (Hardy & Parfit, 1994; Orlick & Partington, 1988). The essential need of a basketeer within the competitive world is that the ability to rapidly switch between forward, backward, lateral and

vertical movements. Thus, it had been thought reasonable to research whether, and if so, what proportion plyometric training can improve the psychological factors of basketball players.

Methodology

The purpose of the study was to seek out the effect of plyometric training on selected psychological variables among college women basketball players. It had been hypothesized that there would be significant differences on selected psychological variables to the effect of plyometric training among college women basketball players. For this study the 30 women basketball players from Alagappa University College of Physical Education, Karaikudi, Tamilnadu were selected randomly and their age ranged from 18 to 25 years. The groups were randomly assigned to 2 equal groups of fifteen each and named as Group 'A' and Group 'B'. Group 'A' underwent plyometric training and Group 'B' has not undergone any training. The data was collected before and after twelve weeks of coaching. The info was analyzed by applying dependent 't' test. The extent of significance was set at 0.05.

Table 1. *Variables and Test*

| S.No | Variables | Questionnaire |
|------|-------------------------------|--------------------------|
| 1 | Anxiety | Rainer Martens Inventory |
| 2 | Sports achievement motivation | Dr.M.L.Kamlesh Inventory |

Results

The findings concerning analysis of dependent 't' test between experimental group and control group on selected psychological variables among women basketball players for pre-post test respectively are presented in table 2 to 3.

Table 2. *Significance of Mean Gains & Losses between Pre and Post Test Scores on Selected Variables of Plyometric Training Group (PTG)*

| S.No | Variables | Pre-Test Mean | Post-Test Mean | Mean difference | Std. Dev (±) | σ DM | 't' Ratio |
|------|-------------------------------|---------------|----------------|-----------------|--------------|------|-----------|
| 1 | Anxiety | 28.33 | 24.13 | 4.20 | 3.70 | 0.95 | 4.38* |
| 2 | Sports achievement motivation | 21.33 | 25.46 | 4.13 | 4.03 | 1.04 | 3.96* |

* Significant at 0.05 level

Table 2 shows the obtained 't' ratios for pre and post test mean difference of selected variable of anxiety (4.38) and sports achievement motivation (3.96). The obtained 't' ratios in comparison with the table value of two .14 of the degrees of freedom (1, 14) it had been found to be statistically significant at 0.05 level of confidence. It had been observed that the mean gain and losses made up of pre to post test were significantly differed in anxiety (4.20, $p < 0.05$) and sports achievement motivation (4.13, $p < 0.05$) thus the formulated hypothesis is accepted.

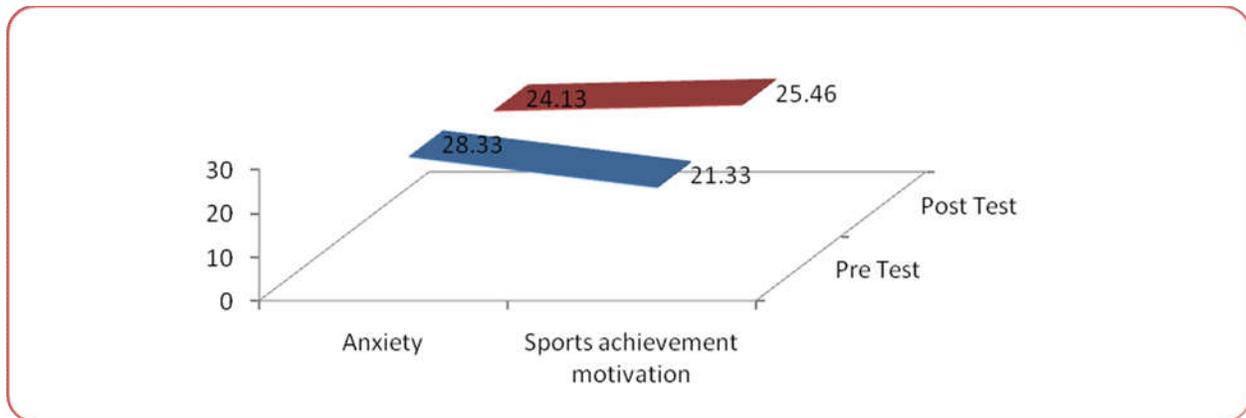


Figure 1. Comparisons of Pre – Test Means and Post – Test Means for Experimental Group in Relation to Psychological variables

Table 3. Significance of Mean Gains & Losses between Pre and Post Test Scores on Selected Variables of Control Group (CG)

| S.No | Variables | Pre-Test Mean | Post-Test Mean | Mean difference | Std. Dev (±) | σ DM | ‘t’ Ratio |
|------|-------------------------------|---------------|----------------|-----------------|--------------|------|-----------|
| 1 | Anxiety | 29.33 | 29.06 | 0.27 | 3.36 | 0.86 | 0.30 |
| 2 | Sports achievement motivation | 21.86 | 22.00 | 0.14 | 3.41 | 0.88 | 0.15 |

* Significant at 0.05 level

Table 3 shows the obtained ‘t’ ratios for pre and post test mean difference in the selected variable of anxiety (0.30) and sports achievement motivation (0.15). The obtained ‘t’ ratios in comparison with the table value of 2.14 of the degrees of freedom (1, 14) it was found to be statistically significant at 0.05 level of confidence. It was observed that the mean gain and losses made from pre to post test were not significantly differed anxiety (0.27, $p>0.05$) and sports achievement motivation (0.14, $p>0.05$).

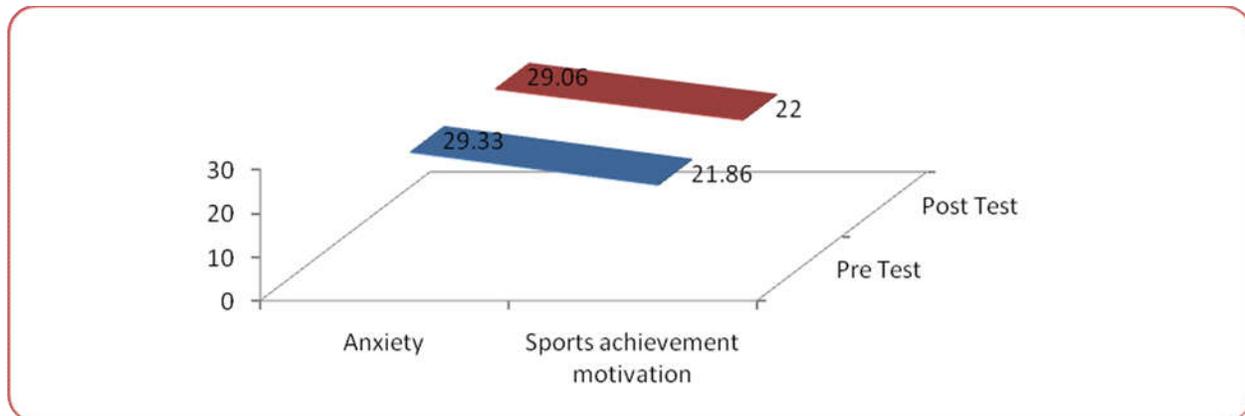


Figure II. Comparisons of Pre – Test Means and Post – Test Means for Control Group in Relation to Psychological variables

Discussions on Findings

In case of psychological variables i.e. anxiety and sports achievement motivation the results between pre and post test has been found significantly higher in experimental group as compared to control group. The findings of this study have strongly indicates that plyometric training of twelve weeks have significant effect on selected psychological variables i.e., anxiety and sports achievement motivation of women basketball players. Hence the hypothesis earlier set that plyometric training programme would are significant effect on selected psychological variables in light of an equivalent the hypothesis was accepted.

Conclusions

On the idea of findings and within the restrictions of the study the subsequent conclusions were drawn:

1. The plyometric training had positive impact on anxiety and sports achievement motivation among college women basketball players.
2. The experimental group showed better improvement on anxiety and sports achievement motivation among college women basketball players than the control group.

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