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Effect of Yogic Packages and Mobility Training on Selected Psychological Variables among Volleyball Players

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Abstract

The purpose of the study was to find out the effect of yogic packages and mobility training on selected psychological variables among volleyball players. To achieve the purpose of the present study, sixty men volleyball players from Kanyakumari district, Tamilnadu, India were selected as subjects at random and their ages ranged from 18 to 25 years. The subjects were divided into three equal groups of twenty players each. Group I acted as Experimental Group I (Yogic packages), Group II acted as Experimental Group II (Mobility training) Group III acted as control group. Pre test was conducted for all the subjects on selected psychological variables. This initial test scores formed as pre test scores of the subjects. The duration of experimental period was 12 weeks. After the experimental treatment, all the subjects were tested on their psychological variables. This final test scores formed as post test scores of the subjects. The pre test and post test scores were subjected to statistical analysis using Analysis of Covariance (ANCOVA) to find out the significance among the mean differences, whenever the 'F' ratio for adjusted test was found to be significant, Scheffe's post hoc test was used. In all cases 0.05 level of significance was fixed to test hypotheses. The yogic packages group had shown significant improvement in all the selected psychological variables among volleyball players after undergoing yogic packages for a period of twelve weeks. The mobility training group had shown significant improvement in all the selected psychological variables among volleyball players after undergoing mobility training for a period of twelve weeks.

Keywords: Yoga, Mobility, Volleyball, Psychological Variables.

Introduction

The aim of yoga is to attain perfection of the intellect, both of the head and the heart, so that, the artist becomes devoted, true and pure. This demands an almost total relinquishment of interest in other activities of life except the chosen path. The mind is fluid and runs after sensual pleasures. Art demands total undivided focal attention. Hence Patanjali explains that the mind must be controlled and then submitted to serve the artistic nature of yoga to its highest potency. Yoga or any art requires acute sharpness of intellect and alert organs of perception. In yoga there is no competition but it requires freedom to think and reconstruct with a desire to perform better. Then it brings to the yogi the most exalted enlightenment. From now on, wherever the yogi is and whatever he does, his thoughts are rooted in spiritual communion, which takes him to the Zenith of spiritual life. The Indian classical thought holds salvation as the ultimate objective of human endeavor. This ideal of achieving salvation (moksha) can be attained by the four different ways viz. Karma yoga, Bhakti yoga, Raja yoga and Gyana yoga etc. We shall in the time allotted briefly consider 'Raja yoga' or 'Astanga yoga' as propounded by Maharishi Patanjali and Swami Vivekananda (Muscandar, 1996).

A person with great mobility is able to perform functional movement patterns with no restrictions in the range of motion (ROM) of those movements. A flexible person may or may not have the core strength, balance, or coordination to perform the same functional movements as the person with great mobility. Performance training for the athlete requires a comprehensive approach to mobility training for each joint within the kinetic chain. A review of the Mobility/Stability Pattern of Human Movement indicates the ankle, hip, thoracic spine, gleno-humeral, and wrist joints require large ranges of motion in order for optimal movement during athletic performance (Zijlstra et al. 2009).

Volleyball is a worldwide popular game and ranks third as a recreational team sport. It is one of the few popular games that originated from the United States. The object of the game is to keep the ball in flight, going back and forth over the net without it touching the floor. Volleyball has been described as an

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'interval' sport with both anaerobic and aerobic components. At the higher skill levels, technical performance may be limited by physical characteristics as well as physical fitness, and performance characteristics. Volleyball is an Olympic team sport in which two teams of six active players, separated by a high net, each trying to score points by trying to ground the ball on the other team's court under organized rules. The complete rules of volleyball are extensive, but in general, play proceeds as follows: Points are scored by grounding the ball on the opponents' court, or when the opponent commits a fault. The first team to reach 25 points wins the set and the first team to win three sets wins the match. Teams can contact the ball no more than three times before the ball crosses the net and consecutive contacts must be made by different players. The ball is usually played with the hands or arms, but players can legally strike or push (short contact) the ball with any part of the body. Spiking the ball is easy to hit and has a fair advantage that the other team will not be able to hit back.

Methodology

The purpose of the study was to find out the effect of yogic packages and mobility training on selected psychological variables among volleyball players. To achieve the purpose of the present study, sixty men volleyball players from Kanyakumari district, Tamilnadu, India were selected as subjects at random and their ages ranged from 18 to 25 years. The subjects were divided into three equal groups of twenty players each. Group I acted as Experimental Group I (Yogic packages), Group II acted as Experimental Group II (Mobility training) Group III acted as control group. Pre test was conducted for all the subjects on selected psychological variables. This initial test scores formed as pre test scores of the subjects. The duration of experimental period was 12 weeks. After the experimental treatment, all the subjects were tested on their psychological variables. This final test scores formed as post test scores of the subjects. The pre test and post test scores were subjected to statistical analysis using Analysis of Covariance (ANCOVA) to find out the significance among the mean differences, whenever the 'F' ratio for adjusted test was found to be significant, Scheffe's post hoc test was used. In all cases 0.05 level of significance was fixed to test hypotheses.

Results

Table 1

Computation of analysis of covariance of mean of yogic packages, mobility training and control groups on anxiety

	Yogic packages	Mobility training	Control Group	Source of Variance	Sum of Squares	df	Means Squares	F-ratio
Pre-Test Means	47.00	47.50	47.20	**BG**	2.53	2	1.26	0.33
				WG	216.20	57	3.79	
Post-Test Means	31.75	31.85	46.85	**BG**	3020.13	2	1510.06	340.41*
				WG	252.85	57	4.43	
Adjusted Post-Test Means	31.77	31.81	46.85	**BG**	3021.94	2	1510.97	338.54*
				WG	249.93	56	4.46	

An examination of table - 1 indicated that the pre test means of yogic packages, mobility training and control groups were 47.00, 47.50 and 47.20 respectively. The obtained F-ratio for the pre-test was 0.33 and the table F-ratio was 3.15. Hence the pre-test mean F-ratio was insignificant at 0.05 level of confidence for the degree of freedom 2 and 57. This proved that there were no significant difference between the experimental and control groups indicating that the process of randomization of the groups was perfect while assigning the subjects to groups. The post-test means of the yogic packages, mobility training and control groups were 31.75, 31.85 and 46.85 respectively. The obtained F-ratio for the post-test was 340.41 and the table F-ratio was 3.15. Hence the post-test mean F-ratio was significant at 0.05 level of confidence for the degree of freedom 2 and 57. This proved that the differences between the post test means of the subjects were significant. The adjusted post-test means of the yogic packages, mobility training and control groups were 31.77, 31.81 and 46.85 respectively. The obtained F-ratio for the adjusted post-test means was 338.54 and the table F-ratio was 3.16. Hence the adjusted post-test mean F-ratio was significant at 0.05 level of confidence for the degree of freedom 2 and 56. This proved that there was a significant difference among the means due to the experimental trainings on anxiety. Since significant differences were recorded, the results were subjected to post hoc analysis using Scheffe's post hoc test. The results were presented in Table – 2.

Table 2
The scheffe's test for the differences between the adjusted post test paired means on anxiety

Adjusted Post-test means			Mean Difference	Required CI
Yogic Packages	Mobility Training	Control Group		
31.77	31.81	---	0.04	1.72
31.77	---	46.85	15.08*	
---	31.81	46.85	15.04*	

**** Significant at 0.05 level of confidence***

The multiple comparisons showed in table 2 proved that there existed significant differences between the adjusted means of yogic packages and control group (15.08), mobility training with control group (15.04). There was no significant difference between yogic packages and mobility training (0.04) at 0.05 level of confidence with the confidence interval value of 1.72. The pre, post and adjusted means on anxiety were presented through bar diagram for better understanding of the results of this study in Figure-I.

Figure I
Pre post and adjusted post test differences of the, yogic packages, mobility training and control groups on anxiety

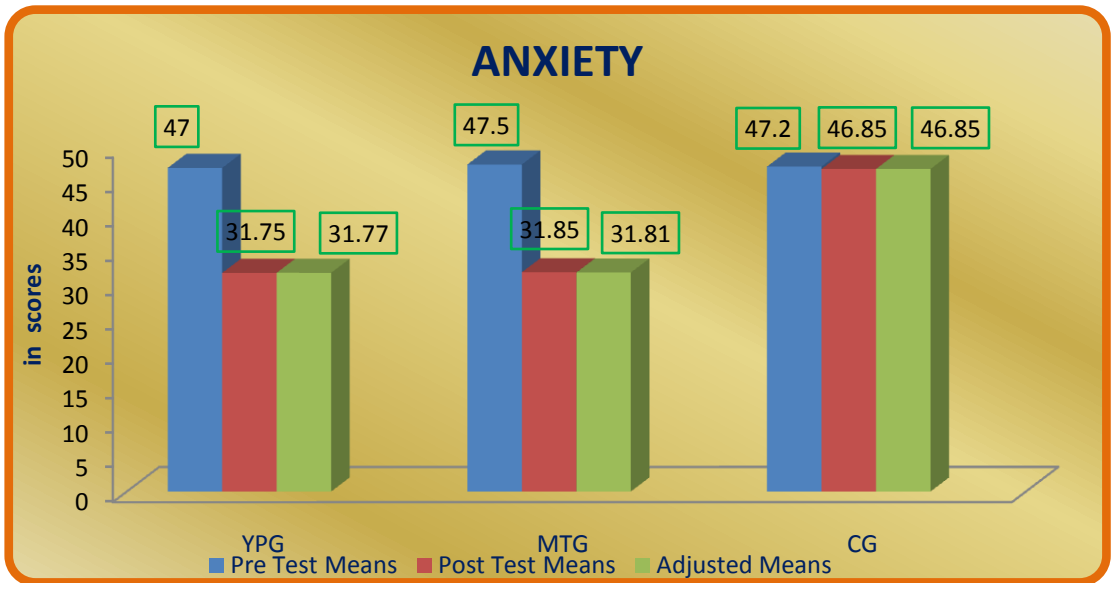


Table 3
Computation of analysis of covariance of mean of yogic packages, mobility training and control groups on stress

	Yogic packages	Mobility training	Control Group	Source of Variance	Sum of Squares	df	Means Squares	F-ratio
Pre-Test Means	38.80	39.65	40.45	**BG**	27.23	2	13.61	0.88
				WG	878.70	57	15.41	
Post-Test Means	26.80	27.25	39.45	**BG**	2060.43	2	1030.21	97.23*
				WG	603.90	57	10.59	
Adjusted Post-Test Means	26.59	27.25	39.65	**BG**	2113.95	2	1056.97	107.56*
				WG	550.26	56	9.82	

An examination of table - 3 indicated that the pre test means of yogic packages, mobility training and control groups were 38.80, 39.65 and 40.45 respectively. The obtained F-ratio for the pre-test was 0.88 and the table F-ratio was 3.15. Hence the pre-test mean F-ratio was insignificant at 0.05 level of confidence for the degree of freedom 2 and 57. This proved that there were no significant difference between the experimental and control groups indicating that the process of randomization of the groups was perfect while assigning the subjects to groups. The post-test means of the yogic packages, mobility training and control groups were 26.80, 27.25 and 39.45 respectively. The obtained F-ratio for the post-test was 97.23 and the table F-ratio was 3.15. Hence post-test mean F-ratio was significant at 0.05 level of confidence for the degree of freedom 2 and 57. This proved that the differences between the post test means of the subjects were significant. The adjusted post-test means of the yogic packages, mobility training and control groups were 26.59, 27.25 and 39.65 respectively. The obtained F-ratio for the adjusted post-test means was 107.56 and the table F-ratio was 3.16. Hence the adjusted post-test mean F-ratio was significant at 0.05 level of confidence for the degree of freedom 2 and 56. This proved that there was a significant difference among the means due to the experimental trainings on stress. Since significant differences were recorded, the results were subjected to post hoc analysis using Scheffe's post hoc test. The results were presented in Table-4.

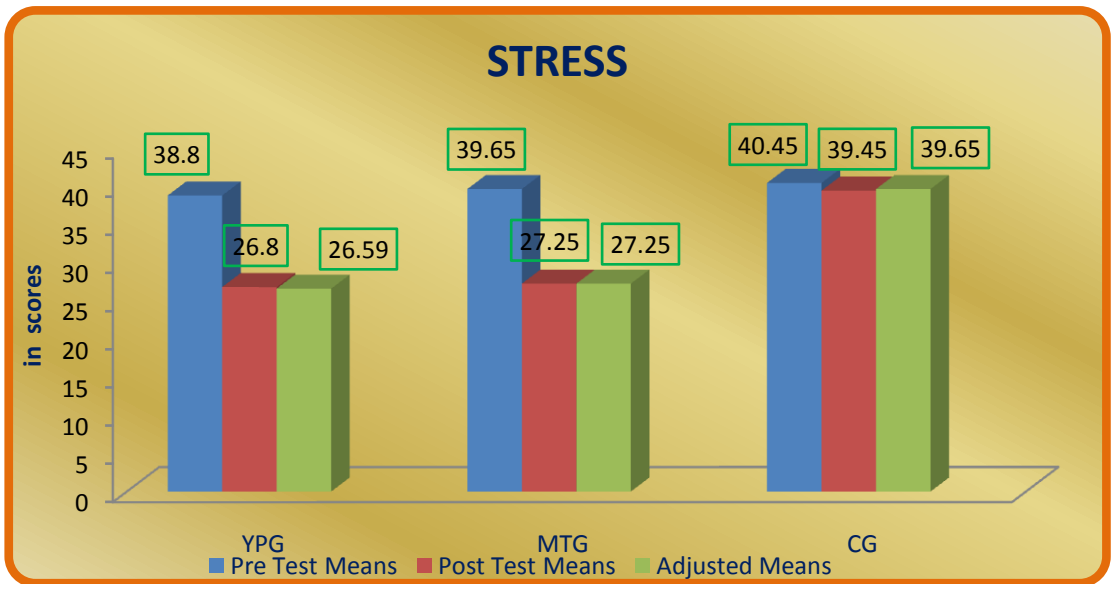
Table 4
The scheffe's test for the differences between the adjusted post test paired means on stress

Adjusted Post-test means			Mean Difference	Required CI
Yogic Packages	Mobility Training	Control Group		
26.59	27.25	---	0.66	2.56
26.59	---	39.65	13.06*	
---	27.25	39.65	12.40*	

**** Significant at 0.05 level of confidence***

The multiple comparisons showed in table 4 proved that there existed significant differences between the adjusted means of yogic packages and control group (13.06), mobility training with control group (12.40). There was no significant difference between yogic packages and mobility training (0.66) at 0.05 level of confidence with the confidence interval value of 2.56. The pre, post and adjusted means on stress were presented through bar diagram for better understanding of the results of this study in Figure-II.

Figure II
Pre post and adjusted post test differences of the, yogic packages, mobility training and control groups on stress



Conclusions

From the analysis of the data, the following conclusions were drawn:

1. The yogic packages group had shown significant improvement in all the selected psychological variables among volleyball players after undergoing yogic packages for a period of twelve weeks.
2. The mobility training group had shown significant improvement in all the selected psychological variables among volleyball players after undergoing mobility training for a period of twelve weeks.

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