



EFFECT OF YOGIC PACKAGES AND MOBILITY TRAINING ON TOTAL CHOLESTEROL AMONG VOLLEYBALL PLAYERS

Dr. JELASTIN D. PRABU

Assistant Professor, Christian College of Physical Education, Nagercoil, Tamilnadu, India.

ABSTRACT

The purpose of the study was to find out the effect of yogic packages and mobility training on total cholesterol 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 total cholesterol. 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 total cholesterol. 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 total cholesterol among volleyball players after undergoing yogic packages for a period of twelve weeks. The mobility training group had shown significant improvement in all the total cholesterol among volleyball players after undergoing mobility training for a period of twelve weeks.

KEYWORDS: Yoga, Mobility, Volleyball, Total cholesterol.

INTRODUCTION

Volleyball is a worldwide popular game and ranks third as a recreational team sport. Yoga may be the cheapest and most scientific method of ensuring soundness of the body and mind. Yoga enhances the intelligence, empowers the mind and makes the life pleasant. Yoga is a part of Indian Culture and Religion. Yoga is essentially an art of understanding all about the soul and to realize the self. Yoga is an ancient form of relaxation and exercise that has many health benefits, including lowering cholesterol. Pranayama also helps to connect the body to its battery, the solar plexus, where tremendous potential energy is stored. 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).

METHODOLOGY

The purpose of the study was to find out the effect of yogic packages and mobility training on total cholesterol 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 total cholesterol. 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 total cholesterol. 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 - I

COMPUTATION OF ANALYSIS OF COVARIANCE OF MEAN OF YOGIC PACKAGES, MOBILITY TRAINING AND CONTROL GROUPS ON TOTAL CHOLESTEROL

	Yogic Packages	Mobility Training	Control Group	Source of Variance	Sum of Squares	df	Means Squares	F-ratio
Pre-Test Means	188.50	191.05	188.70	BG	80.43	2	40.21	1.37*
				WG	1666.15	57	29.23	
Post-Test Means	172.75	173.05	188.05	BG	3061.20	2	1530.60	58.17*
				WG	1499.65	57	26.31	
Adjusted Post-Test Means	172.79	172.97	188.08	BG	3054.64	2	1527.32	57.16*
				WG	1496.11	56	26.71	

An examination of table - I indicated that the pre test means of yogic packages, mobility training and control groups were 188.50, 191.05 and 188.70 respectively. The obtained F-ratio for the pre-test was 1.37 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 172.75, 173.05 and 188.05 respectively. The obtained F-ratio for the post-test was 58.17 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 172.79, 172.97 and 188.08 respectively. The obtained F-ratio for the adjusted post-test means was 57.16 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 total cholesterol. 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-II.

TABLE - II

THE SCHEFFE'S TEST FOR THE DIFFERENCES BETWEEN THE ADJUSTED POST TEST PAIRED MEANS ON TOTAL CHOLESTEROL

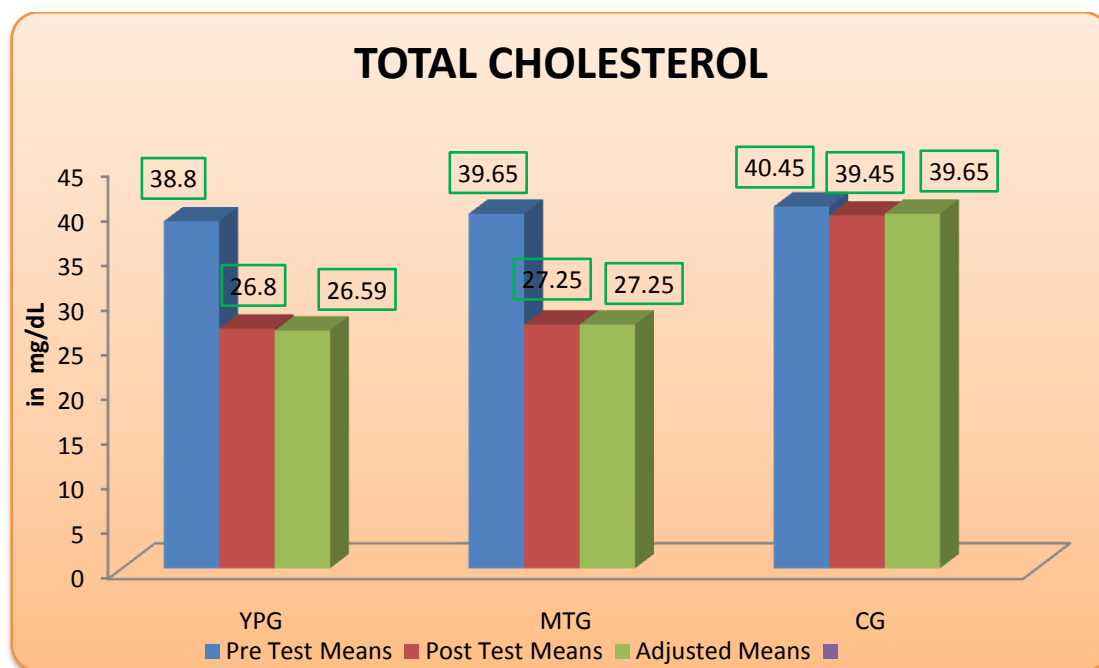
Adjusted Post-test means			Mean Difference	Required CI
Yogic Packages	Mobility Training	Control Group		
172.79	172.97	---	0.18	4.23
172.79	---	188.03	15.24*	
---	172.97	188.03	15.06*	

* Significant at 0.05 level of confidence

The multiple comparisons showed in table II proved that there existed significant differences between the adjusted means of yogic packages and control group (15.24), mobility training with control group (15.06). There was no significant difference between yogic

packages and mobility training (0.18) at 0.05 level of confidence with the confidence interval value of 4.23. The pre, post and adjusted means on total cholesterol 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 TOTAL CHOLESTEROL



CONCLUSIONS

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

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

REFERENCES

1. Chandrasekaran.K (2003). *Yoga for Health*, Delhi; Khel Sathiya Kendra.
2. Chatterjee,F.,Bruce,S.A.,Woldege,R.C. (2010). Effect of yogic Exercises on human Growth hormone in a middle aged group: a pilot study. *Yoga Mimamsa a Quarterly Journal*, vol XLII.1, PP.40-47.
3. Chen, C.H., Nosaka, K., Chen, H.L., Lin, M.J., Tseng, K.W. & Chen, T.C. (2011). Effects of flexibility training on eccentric exercise-induced muscle damage. *Med Sci Sports Exerc.* 43(3):491-500.
4. Chen, K.M., Chen, M.H., Hong, S.M., Chao, H.C., Lin, H.S., & Li, C.H. (2008). Physical fitness of older adults in senior activity centres after 24-week silver yoga exercises. *J Clin Nurs.* 17(19):2634-46.
5. Chidambara Raja.S. (2014). Effect of Yogic Practices and Aerobic Exercises on Strength Endurance Self-Concept and Blood Pressure. *International Journal of Recent Research and Applied Studies*, 1, 6(7), 33 - 36.
6. Christina, B., Ragonesi, B.S. & James, C. G., (2012). Short-term, Early Intensive Power Mobility Training: Case Report of an Infant at Risk for Cerebral Palsy. *Pediatr Phys Ther.* 2012, 24(2): 141-148.
7. Cramer, H., Lauche, R., Haller, H., Steckhan, N., Michalsen, A. & Dobos, G. (2014). Effects of yoga on cardiovascular disease risk factors: A systematic review and meta analysis. *Int J Cardiol.* pii: S0167-5273(14)00370-2.
8. Dick Frank W. (1997). *Sports Training Principles*, London: A&C Black Publishers Ltd.

9. Saravanan, J. & Kanagasabai P. (2010). Effects of selected yogic practices on selected physiological variables of college men. *Bharathiar National Journal of Physical Education and Exercise Sciences*. 2, 2:30-34.
10. Zijlstra, G.A.R., Van Rens, G.H.M.B., Scherder, E.J.A., Brouwer, D.M. Van Der Velde, J., Verstraten, P.F.J. & Kempen, G.I.J.M. (2009). Effects and feasibility of a standardised orientation and mobility training in using an identification cane for older adults with low vision: design of a randomised controlled trial. *BMC Health Serv Res*. 9: 153.