



IMPACTS OF YOGIC PRACTICE WITH PLYOMETRIC TRAINING ON SELECTED MOTOR FITNESS VARIABLES AMONG VOLLEYBALL PLAYERS

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ABSTRACT

This study aims to investigate the impacts of incorporating yogic practice with plyometric training on selected motor fitness variables among volleyball players. Twenty participants were selected from V.C.V. Shishu Vidyodaya Matric. Hr. Sec. School in Coimbatore, Tamil Nadu, falling within the age group of 14 to 17 years. The subjects were divided into two equal groups, comprising ten players each – an experimental group and a control group.

Over an eight-week period, the experimental group engaged in a regimen that combined yogic practices with plyometric training, involving one hour per day for three days a week. In contrast, the control group did not participate in any structured training during the study period. The chosen motor fitness variables for assessment included flexibility, explosive power, and muscular strength.

Statistical analysis, employing the paired 't' ratio, was utilized to compare the means of pre-test and post-test data for both the experimental and control groups. The findings indicated a significant difference in the criterion variables. This difference was attributed to the impact of the combined yogic practice with plyometric training administered to the experimental group, showcasing improvements in flexibility, explosive power, and muscular strength compared to the control group. The results of this study shed light on the potential efficacy of integrating these two distinct training modalities for enhancing motor fitness variables among volleyball players.

KEYWORDS: *Yogic Practice, Plyometric Training, Flexibility, Explosive Power, Muscular Strength and Volley Players.*

INTRODUCTION

In the realm of sports and athletic performance, the quest for optimal training methods that seamlessly combine traditional practices with contemporary approaches is unceasing. One such intriguing synergy lies at the intersection of yogic practice and plyometric training, a convergence that holds the potential to significantly impact the motor fitness variables of volleyball players. This study delves into the exploration of the combined effects of yogic practices and plyometric training on selected motor fitness variables among volleyball players, aiming to unravel the potential synergies and enhancements these two diverse yet complementary methodologies might offer.

The comparison of yogic principles, renowned for their focus on mindfulness, flexibility, and holistic well-being, with plyometric training, a dynamic and explosive form of exercise aimed at maximizing power and performance, presents an intriguing fusion. Volleyball, a sport that demands a unique blend of strength, agility, and mental acuity, provides an ideal context for investigating the potential benefits of integrating these two distinct training modalities.

METHODOLOGY

This study aims to assess the impact of integrating yogic practice with plyometric training on selected motor fitness variables among volleyball players. The cohort comprised twenty subjects drawn from V.C.V. Shishu Vidyodaya Matric. Hr. Sec. School in Coimbatore, Tamil Nadu, falling within the age range of 14 to 17 years. These participants were evenly divided into two groups, namely the experimental group and the control group, each consisting of ten volleyball players.

Over an eight-week period, the experimental group underwent a regimen that combined yogic practices with plyometric training, engaging in one-hour sessions per day for three days a week. In contrast, the control group did not participate in any structured training throughout the study. The motor fitness variables selected for evaluation included flexibility, explosive power, and muscular strength, serving as the criterion variables in this investigation.



To analyze the data, a statistical approach utilizing paired 't' ratios was employed, comparing the means of the pre-test and post-test data for both the experimental and control groups. The results revealed significant differences in the criterion variables, indicating the notable impact of the combined yogic practice with plyometric training on enhancing flexibility, explosive power, and muscular strength in the experimental group when compared to the control group. This study contributes valuable insights into the potential benefits of integrating these two distinct training modalities for improving motor fitness variables among volleyball player.

Table – I: Selection of variables and criterion measures

S.No		Experimental Group	Control Group
1	Flexibility	Sit and Reach Test	Meters
2	Explosive Power	Standing Broad Jump	Meters
3	Muscular Strength	Sit-ups	Counts / Minutes

STATISTICAL TECHNIQUE

Data will be gathered both prior to and after the experimental intervention. The information acquired during the experimental period will undergo statistical analysis using a paired 't' test at a significance level of 0.05. The objective is to assess improvements in flexibility, explosive power, and muscular strength from the baseline to the post-treatment phase.

Table – II: The summary of t-ratio for the pre-test and post-test of experimental group and control group

S.No	Motor Fitness Variables	Groups	Test	Mean	't' value
1	Flexibility	Experimental group	Pre-test	22.40	26.00*
			Post-test	26.70	
		Control group	Pre-test	21.50	0.71
			Post-test	22.10	
2	Explosive Power	Experimental group	Pre-test	1.78	7.42*
			Post-test	1.81	
		Control group	Pre-test	1.75	0.83
			Post-test	1.77	
3	Muscular Strength	Experimental group	Pre-test	31.50	10.80*
			Post-test	34.60	
		Control group	Pre-test	27.50	1.08
			Post-test	30.50	

*Significance at 0.05 level

Table –II shows that the obtained mean values of pre-test and post-test of experimental group for flexibility, explosive power and muscular strength were 22.40 and 26.70, 1.78 and 1.81, 31.50 and 34.60 respectively, the obtained 't' ratio were 26.00*, 7.42*, 10.80* respectively. The tabulated 't' value is 2.26 at 0.05 level for the degree of freedom 9. The calculated 't' ratio was greater than the table value. It is found to be significant change in flexibility, explosive power and muscular strength of the volleyball players. The obtained mean values of pre-test and post-test of control group for flexibility, explosive power and muscular strength were 21.50 and 22.10, 1.75 and 1.77, 27.50 and 30.50. The required table value is 2.26 at 0.05 level for the degree of freedom 9. The calculated 't' ratio was lesser than the table value. It is found to be insignificant change in flexibility, explosive power and muscular strength of the volleyball players. The mean values of selected motor fitness variables among experimental group and control group are graphically represented in fig-1.

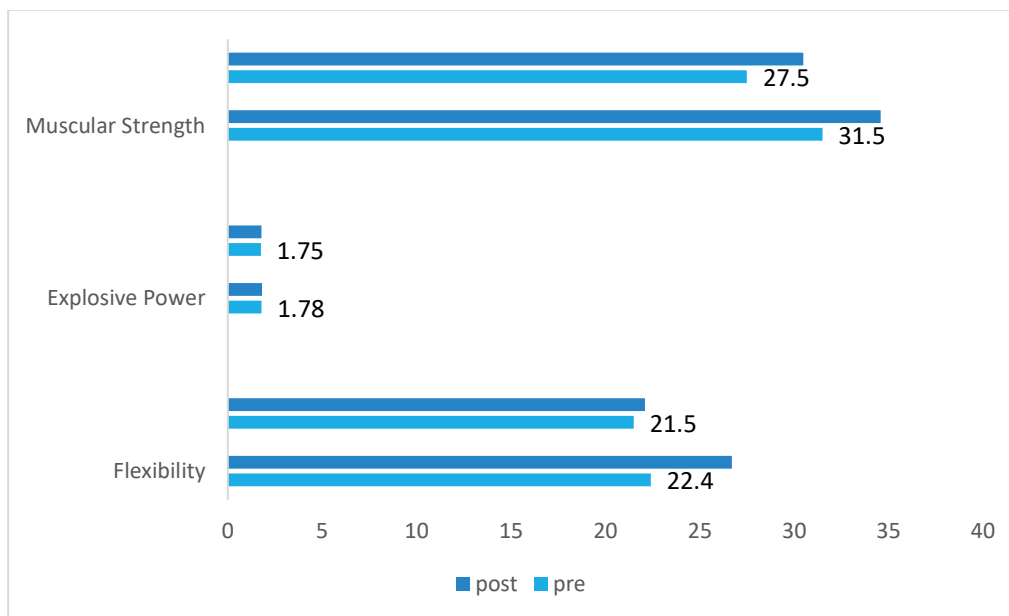


Fig-1: Bar diagram shows the pre-test and post-test on selected motor fitness variables of experimental group and control group

DISCUSSION ON FINDINGS

The study's outcomes revealed a significant enhancement in selected motor fitness variables, including flexibility, explosive power, and muscular strength, following the implementation of yogic practice with plyometric training. These improvements were attributed to the meticulous planning, preparation, and execution of the training regimen provided to the volleyball players. Notably, the findings of this study align with those of previous research conducted by Prasanna, **Sathiyabama et al (2023)¹**, **Senthil Kumaran et al (2021)²**, **Senthil Kumaran (2018)³**, and **Ooraniyan et al (2018)⁴**. The collective evidence from these studies suggests that the integration of yogic practice with plyometric training represents a valuable protocol for enhancing the aforementioned motor fitness variables among volleyball players. The clear and consistent improvements observed in flexibility, explosive power, and muscular strength underscore the effectiveness of this training approach. Consequently, the results of the present study contribute to the growing body of knowledge supporting the use of yogic practice with plyometric training as an appropriate and beneficial methodology for optimizing the physical performance of volleyball players.

CONCLUSION

Based on the study's findings and considering its limitations, it is evident that incorporating yogic practice with plyometric training contributes to the improvement of motor fitness variables among volleyball players. The research observed a consistent and progressive enhancement in the selected criterion variables for the group engaged in plyometric training over an eight-week period. This improvement encompassed increased muscular strength, heightened leg explosive power, and enhanced flexibility. In conclusion, the study determined that the customized yogic practice with plyometric training demonstrated statistically significant effects on motor fitness variables among volleyball players throughout the treatment period.

1. It was concluded that individualized effect of control group showed a statistically insignificant over the course of the period on selected motor fitness variables of among school level male volleyball players.
2. The results of comparative effects lead to conclude that the yogic practice with plyometric training group had better significant improvement on selected motor fitness variables of school level male volleyball players as compared to their performance with control group.

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