

IMPACT OF SWIMMING ON CORPOREAL VARIABLES AMONG WOMEN VOLLEYBALL PLAYERS

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Abstract

Volleyball is rebound sport, in some other sports players can able to control the ball and they can able to move along with the ball but in volleyball, it is forbidden to catch, control and move along with the ball because it is essential for the players to be in right place at the right time and ball should be in controlled manner. Hence, the game volley ball need good movement skill, strength endurance to play the game to improve this skill instead of regular training researcher intended to take swimming as a training because swimming involves each and every part of muscles in our body which improves strength and endurance and movement skill in water. To achieve the purpose of this study 40 women volley ball players who knows swimming were selected from Coimbatore district and their age ranged between 18-23 years. The aim of the research is to determine the impact of swimming on Corporeal variables among women volleyball players the students were divided into two equal groups and experimental group(N=20) under went swimming for 12 weeks, four days in a week and control group(n=20) did not go any training. After the training period it was found that experimental group produced significant improvement in corporeal variables of explosive power, cardiovascular endurances and muscular strength and endurance.

Keyword: *volleyball, swimming, explosive power, cardiovascular endurances and muscular strength and endurance.*

INTRODUCTION

Volleyball is rebound sport, in some other sports players can able to control the ball and they can able to move along with the ball but in volleyball, it is forbidden to catch, control and move along with the ball because it is essential for the players to be in right place at the right time and ball should be in controlled manner. Hence, the game volley ball need good movement skill, strength endurance to play the game to improve this skill instead of regular training researcher intended to take swimming as a training because swimming involves each and every part of muscles in our body which improves strength and endurance and movement skill in water. Swimming takes different gravitational and resistive forces the energy used in swimming is high but a considerable reduction occurs at given velocity as a result of regular training. There will be significant improvement of oxygen uptake during maximal swimming in comparison to regular training. One explanation for this condition is the better diastolic cardiac filling attained in a supine body position and also negligible gravitational effects and compared with other endurance sports. (Alexander, 2016)

HYPOTHESIS

It was hypothesized that Impact of swimming would produce significant improvement on corporeal variables (Explosive power, Cardiovascular endurances and Muscular strength and endurance) among women volleyball players.

METHODOLOGY

To achieve the purpose of this study 40 women volley ball players who knows swimming were selected from Coimbatore district and their age ranged between 18-23 years. The aim of the research is to determine the impact of swimming on Corporeal variables(Explosive power, Cardiovascular endurances and Muscular strength and endurance) among women volleyball players the students were divided into two equal groups and experimental group(N=20) and control group(n=20) did not go any training. All the treatment groups under their training protocol as per the schedule for a period of twelve weeks, four days in a week.To find out the significant difference between pre and post-test of groups‘t’ test was used.The level of significance at 0.05 was consider and chosen for this study to obtain the accurate result

S. No	Variables	Test items	Units of Measurement
1	Explosive Power	Sargent Jump	In Centimeters
2	Cardiovascular Endurance	12 Minutes Run and Walk Test	In Meters
3	Muscular Strength And Endurance	Sit Ups Test	In Counts

ANALYSIS AND INTREPRATION OF DATA

The Tabulation Values Shows the Mean Losses / Gains between Pre and Post Test Values On Selected Corporeal, Variables of Women Volleyball Players

Parameters	Test	Mean	Std. Deviation	S.E.M	M.D	‘t’ value	% value
Explosive power in CM	Pre-Test	47.33	2.894	.18170	1.93	10.64	4.08 %
	Post-Test	49.26	2.939				
Cardio Vascular Endurance in Meters	Pre-Test	1334.00	140.244	5.45108	52.00	9.53	3.89 %
	Post-Test	1386.00	146.862				
Muscular Strength Endurance	Pre-Test	31.93	3.41147	.16903	2.000	11.832	6.26 %
	Post-Test	33.93	3.19523				

Table Shows the results of ‘t’ value of Corporeal variables of Explosive Power (10.64), Cardio Vascular Endurance (9.53) and Muscular Strength Endurance (11.83); The obtained tabulated t value was 2.14 statistically significant difference at the 95 % confidential level, D.F. (1, 19). It was found that statistically significant at 0.05 level of confidence. It was observed that the mean gains and losses made from pre and post-test were showed significant improvement in explosive power ($1.93p < 0.05$), Cardio Vascular Endurance ($52.00 p < 0.05$), Muscular Strength Endurance ($2.00 p < 0.05$), thus the formulated hypothesis is accepted.

CONCLUSION

It was concluded that impact of 12 weeks swimming training produced significant improvement on selected corporeal variables of Explosive power cardiovascular endurance, Muscular strength and endurances among women volley ball players. Therefore this kind of training could help the coaches to improve performances and could potentially improves variables by using different types of training.

BIBLIOGRAPHY

1. Wakayoshi K, D'Acquisto J, Cappaert J, et al. Relationship between metabolic parameters and stroking technique characteristics in front crawl. In: Troup JP, Hollander AP, Strasse D, Trappe SW, Cappaert JM, Trappe TA, editors. Biomechanics and medicine in swimming VII. London: Taylor & Francis; 1996. p. 152–8.
2. Girold S, Calmels P, Maurin D, et al. Assisted and resisted sprint training in swimming. *J Strength Cond Res.* 2006;20(3):547–54.
3. Wakayoshi K, D'Acquisto L, Cappaert J, et al. Relationship between oxygen uptake, stroke rate and swimming velocity in competitive swimming. *Int J Sports Med.* 1995;16(01):19–23
4. González-Boto R, Salguero A, Tuero C, et al. Monitoring the effects of training load changes on stress and recovery in swimmers. *J Physiol Biochem.* 2008;64(1):19–26.
5. Aspenes ST, Karlsen T. Exercise-training intervention studies in competitive swimming. *Sports Med.* 2012;42(6):527–43

