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Effect Of Throw Ball Specific Training And Traditional Training On Selected Motor Ability Components And Physiological Variables Of Collegiate Men Students

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ABSTRACT :

The purpose of the present investigation was to find out the effects of Throw ball Specific training and Traditional training on selected motor ability components and physiological variable of Maharishi junior college men students. To achieve this purpose 45 men students with an age group of 18-25 years were selected from Maharishi junior college men, Hosur, as subjects. They were randomly divided into three equal groups of 15 subjects each and assigned to experimental group-I, experimental group-II, and control group. Experimental group-I underwent Throw ball Specific training, Experimental group-II underwent Traditional training and control group was not given any specific training. All the subjects underwent two areas of test namely Motor ability components and physiological variables. They were assessed before and after the training period of eight weeks. The analysis of covariance was used to find out the significant pre and post mean difference between the groups to analyze the data. The study revealed that the above said variables were significantly improved due to the influence of Throw ball Specific training and Traditional training.

Keywords: 1. Throw ball Specific training. 2. Traditional training 3. Muscular strength 4. Arm explosive power 5. Vo₂ max 6. Anaerobic power

Introduction:

Sports achievements of a country depend mostly on the training design for a particular sport. Success in the competitive sports and games can be attributed to many factors, but training is the most important factor. Different training methods have been commonly used to improve physical fitness and related standards of performance of athletes. Throw ball Specific training mainly develop the arm explosive type of activities in the form of wrist movement training. Traditional training used to develop the general strength endurance purpose in the form of general movement exercise. In this study attempt is made to find out the effects of Throw ball Specific training and Traditional training on selected motor ability components and physiological variables of maharishi junior college men students.

Konzak and Boudreau (1984) studied male and female, university aged, traditional Traditional students. This was a cross sectional study with respect to belt level. The students were separated into three groups; beginner, (2 weeks training) intermediate (6 months and at least green belt level) and advanced (black belt, with at least 3 1/2 years training)

Methods: A total of 207 healthy elderly participants (65-74 years, 113/207 (55%) men) were randomly assigned to one of three intervention groups: (1) Tai Chi, three times/week for 1 h/session (n = 64); (2) resistance training exercise, three times/week for 1 h/session (n = 65); (3) usual level of physical activity control group (n = 78). Anthropometric measures, dual X-ray densitometry body composition, blood pressure, lipids, glycaemic and insulin sensitivity indices were measured at baseline and 12 months. Repeated-measures analysis of variance (anova) was used to assess the between-group changes using a last-observation-carried-forward intention-to-treat approach.

Results: A total of 180 (87.0%) subjects completed the study. No significant changes were identified in the Tai Chi group compared to the resistance training or control group. Of the primary outcomes, only the improvement in the insulin sensitivity index differed, being significantly greater in the resistance training than in the control group [mean difference 0.018 (95% confidence interval (CI) 0.000-0.037) mmol glucose/min, P = 0.02), and tending to be greater than in the Tai Chi group (mean difference 0.019 (95% CI 0.000-0.038) mmol glucose/min, P < 0.06).

Conclusion: Tai Chi had no significant effect on any measure compared to the controls, whereas resistance training improved the insulin sensitivity index in this 12-month study.

Methodology :

To achieve this purpose 45 men students with the age group of 18-25 were recruited from Maharishi junior college, Coimbatore as a subjects. They were randomly divided in to three equal groups of 15 subjects each and assigned to experimental group-I, experimental group-II, and control group. The experimental group-I underwent Throw ball Specific training(single stick rotation, four side variant rotation inward and outward rotation) Experimental group-II underwent Traditional training(upper punch, lower punch, middle punch, kicks) and Control group was not given any specific training. The following variables were selected : muscular strength(1 RM bench press test), Medicine ball throw (arm explosive power) and Physiological variable V02 max (beep test), Anaerobic power (Margaria Kalamani step test). They were assessed before and after the training period of eight weeks. The analysis of covariance was used to analyze the data to find out the overall significant among the three groups.

Result And Discussion:

Mean	Exp-I	Exp-II	Con.Gp	SV	SS	Df	MS	F	Sig.
Pre-test means	84.1333	84.4000		B	.578	2	.289	.011	.989
			84.3333	W	1100.667	42	26.206		
Post-test Means	88.8000	87.5333	84.6667	B	134.533	2	67.267	2.506	.094
				W	1127.467	42	26.844		
Adjusted post-test means	88.955	87.423	84.622	B	144.780	2	72.390	86.312	.000
				W	34.387	41	.839		

* Significant at 0.05 levels (3.23)

Table-1

Computation of analysis of covariance of Muscular strength

Table -1 shows the analysed data on muscular strength. The pre test, post test and adjusted post test means of the muscular strength were (84.13, 84.40, 84.33) (88.80, 87.53, 84.67) (88.95, 87.42, 84.62) for the experimental group-I, II and control group respectively. The obtained 'F' ratio for pre test 0.011 post test 2.51 and adjusted post test were 86.62. the obtained 'F' value is 3.23 at 0.05 level of significance for the degrees of freedom(2 & 42 and 2 & 41). Therefore it is proved that the Throw ball Specific training is better then the Traditional group and control group.

Mean	Exp-I	Exp-II	Con.Gp	SV	SS	Df	MS	F	Sig.
Pre-test Means	19.47	20.00	19.73	B	2.133	2	1.067	.137	.872
				W	326.67	42	7.78		
Post-test Means	23.53	23.93	20.67	B	135.64	2	67.82	10.411	.000
				W	273.60	42	6.514		
Adjusted post-test means	23.76	23.78	20.67	B	134.46	2	67.232	69.774	.000
				W	39.51	41	.964		

* Significant at 0.05 levels (3.23)

Table: 2

Computation of analysis of covariance of Arm Explosive power

Table -2 shows the analysed data on explosive power. The pre test, post test and adjusted post test means of the explosive power were (19.47,20.00,19.73)(23.53, 23.93, 20.06) (23.76,23.71,20.07) for the experimental group-I, II and control group respectively. The obtained 'F' ratio for pre test 0.137 post test 10.41 and adjusted post test were 67.23. The obtained 'F' value is 3.23 at 0.05 level of significance for the degrees of freedom(2 & 42 and 2 &41). Therefore it is proved that the Throw ball Specific training is better then the Traditional group and control group.

Mean	Exp-I	Exp-II	Con.Gp	SV	SS	Df	MS	F	Sig.
Pre-test means				B	4.444E-02	2	2.222E-02	.002	.998
	41.93	42.00	41.93	W	427.867	42	10.187		
Post-test Means	44.80	45.13	42.26	B	73.733	2	36.867	4.218	.021
				W	367.067	42	8.740		
Adjusted post-test means	44.82	45.09	42.2	B	71.857	2	35.928	61.099	.000
				W	24.109	41	.588		

The table value for 0.5 level 3.23

Table: 3

Computation of analysis of covariance of V02 Max

Table -3 shows the analysed data on Vo2 max. The pre test, post test and adjusted post test means of the Vo2 max were (41.93, 42.00, 41.93)(44.80, 45.13, 42.27) (44.82, 45.09, 42.29) for the experimental group-I, II and control group respectively. The obtained 'F' ratio for pre test 0.002 post test 4.22 and adjusted post test were 61.09. The obtained 'F' value is 3.23 at 0.05 level of significance for the degrees of freedom(2 & 42 and 2 & 41). Therefore it is proved that the Throw ball Specific training is better then the Traditional group and control group.

Mean	Exp-I	Exp-II	Con.Gp	SV	SS	Df	MS	F	Sig.
Pre-test means				B	.578	2	.289	.012	.988
	81.6000	81.8667	81.6667	W	980.667	42	23.349		
Post-test Means	84.8667	85.4667	82.0667	B	98.800	2	49.400	2.070	.139
				W	1002.400	42	23.867		
Adjusted post-test means	84.978	85.311	82.111	B	92.849	2	46.425	72.848	.000
				W	26.128	41	.637		

* Significant at 0.05 levels (3.23)

Table: 4 Computation of analysis of covariance of Anaerobic power

Table -4 shows the analysed data on Anaerobic power. The pre test, post test and adjusted post test means of the Anaerobic power were (81.60, 81.87, 81.67)(84.87, 85.47, 82.07) (84.98, 85.31, 82.11) for the experimental group-I, II and control group respectively. The obtained 'F' ratio for pre test 0.12 post test 2.07 and adjusted post test were 72.85. The obtained 'F' value is 3.23 at 0.05 level of significance for the degrees of freedom(2 & 42 and 2 & 41). Therefore it is proved that the Throw ball Specific training is better then the Traditional group and control group.

Discussion And Findings:

Fox (1993) stated that power is a function of force and strength. The ability to develop considerable power is a prime factor in athletic success. Power is a performance of work expressed unit of time. The ability to rotate the stick, stick fighting, fast turning, quick movement are few examples of athletics converting energy to power. The term explosive power has been associated with this anaerobic metabolism. Shaver (1982) stated that the decreased pulse rate at rest is a consequence of Throw ball Specific training that is carried out continuously for 8 weeks. The cause of resting brady cardiac is related to effects of training on the autonomic nervous system that are particularly reflected in the vagus nervous to the heart. The Throw ball Specific training group probably performed better than the other training groups, because of the nature of the exercise and the advantages it has in storing sufficient potential energy during the eccentric phase of the movement and converting it to kinetic energy during the concentric phase of movement which leads to rapid explosive movement that characterizes the exercise (Brzycki, 1986). The findings of the present study are in conformity with the previously published findings on effects of training on selected criterion variables.

Kroll and Carlson (1967) note that combat sports may provide a chance to display prowess or masculinity, to develop self confidence, release tension and sublimate aggression. Traditional is suggested as having several advantages as a combat physical education system in that a) women can participate, b) as a method of self-defence Traditional may be considered superior to amateur boxing or wrestling, c) Traditional effectively develops certain muscular strengths and d) the emphasis on wholesome character attributes and etiquette rituals is desirable in attempts at amelioration of asocial tendencies

Conclusions:

Within the limitations of the present study, the following conclusions were drawn.

Throw ball Specific training and Traditional training significantly improved the muscular strength, arm explosive power, Vo2 max, anaerobic power were due to the influence of among Maharishi junior college men students.

Throw ball Specific training and Traditional training significantly improved the muscular strength, arm explosive power, Vo2 max, anaerobic power were better than the Traditional group and Control group.

Traditional training significantly improved the muscular strength, arm explosive power, Vo2 max, anaerobic power were better than the control group

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