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Effect Of High Intensity Interval Training (Hiit) On Strength Of Female Basketball Players

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Abstract:

The present study was designed to find out the effect of High Intensity Interval Training (HIIT) on Lower Extremity and Upper Extremity Strength of basketball players. To achieve this purpose 30 male basketball players from Park group of Institutions, Tamilnadu, India were randomly selected as subject and their age group was 18 to 23 years. They were divided in to two equal groups. The group 1 considered as experimental group who underwent the High Intensity Interval Training (HIIT) three days per week and totally for eight weeks, Group II considered as control group and they did not undergo any special training apart from their regular activities. All the subjects of the two groups were tested on selected bench press and half squat test. Based on the results revealed that the High Intensity Interval training group produced significant improvement than the control group in bench press and half squat.

Introduction:

High Intensity Interval Training (HIIT) is a form of fitness training in which a pair or group of various workouts are grouped together to form a circuit in which you engage in each individual exercise within the circuit once before going through for a second, third, fourth or as many times as you need to. The very labels of HIIT suggest that this form of training is characterized by a high intensity pace, with little to no breaks in between each exercise with in the circuit. HIIT is a great way to not only knock out a work out session in a very time efficient manner but to also ensure that, because of the fast pace in which you are moving through workout that your heart rate is elevated through out the duration. This will help you burn fat in addition to working out more quickly.

Methodology :

To achieve the purpose of these study 30 basketball players were selected randomly from the Park group of Institutions,Coimbatore,Tamilnadu. The selected subjects were divided in to two equal groups namely Experimental group (Group I) and Control group (Group II). After assigning the subjects in various groups pre-test was conducted in bench press & half squat and score was recorded in Kg. After the pre test Group I under gone HIIT training for 08 weeks and Group II was consider as control group. After the training program of 08 weeks post-test was conducted for the both groups and score was recorded in Kg.

Statistic Technique :

To find out the difference between the two groups t-test was used.

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	CONHALF	42.2667	15	5.0915	1.3146
	EXPHALF	49.7333	15	5.2708	1.3609
Pair 2	CONTOBEN	23.4667	15	3.1366	.8099
	EXPBENCH	27.2667	15	2.5486	.6580

Paired Samples Statistics

		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	CONHALF - EXPHALF	-7.4667	7.0190	1.8123	-11.3537	-3.5797	-4.120	14	.001
Pair 2	CONTOBEN - EXPBENCH	-3.8000	4.4593	1.1514	-6.2695	-1.3305	-3.300	14	.005

Paired Samples Test

Table – 1 Post-test for Half Squat and Bench press

Table I shows that the pretest means on Half Squat in HIIT training for the control group and experimental group were 42.26 and 49.73 respectively. The obtained t ratio was 4.120. Since the obtained t ratio was greater than the table value of 0.011, it was significant at 0.05 level of confidence and hypothesis was accepted. Table I shows that the pretest means on Bench press in HIIT training for the control group and experimental group were 23.46 and 27.26 respectively. The obtained t ratio was 3.300. Since the obtained t ratio was greater than the table value of 0.05, it was significant at 0.05 level of confidence and hypothesis was accepted.

Discussion / Conclusion:

Based on the analysis and result of the study the following conclusions were drawn.

The HIIT training brings the significant improvement in Lower Extremity when we compared the Half Squat post test between the control group and experimental group.

The HIIT training brings the significant improvement in Upper Extremity when we compared the Bench Press post test between the control group and experimental group

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