Research Paper Physical Education

Effect of Different Packages of Physical Activities Programme on Selected Motor Fitness and Physiological Variables of West Bengal Tribal Students

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ABSTRACT

The study examined "Effect Of Different Packages Of Physical Activities Programme On Selected Motor Fitness And Physiological Variables Of West Bengal Tribal Students" The purpose of the study eighty (N=80) school boys were selected randomly from Alipurduar district of West Bengal and there age ranged from 12 to 15 . The subject was divided into four groups each group twenty (n=20) subject were selected. The experiential Group I underwent the calisthenics exercise, group II Yogic exercise, group III Recreational, Traditional activates and group IV was control they did not participated any activity during the physical activities programme. The different packages of physical activates program was given 40 to 45 minutes for 12 week and four days per week. The data were collected before and after the physical activities programme. The data was collected before (pretest) and after the experimental period of twelve weeks the post test was conducted in identical manner. The pre test and post test scores were collected to statistical analysis by using the Analysis of Covariance (ANCOVA). Wherever the 'F' ratio for adjusted post test was found to be significant. Scheffe's post hoc test was used to determine the paired mean difference among the groups. The level of significance was fixed at 0.05 level of confidence. Based on the research the result of speed and respiratory rate on calisthenics exercise group ,Yogic exercise group, Recreational and Traditional activates group and control groups were significant different.

KEYWORDS Tribal student, Callisthenic exercise, yogic exercise, traditional and recreational activity,Speed, Respiratory rate.

INTRODUCATION:

Physical education starts from very birth of a child. Health and physical fitness have a vital role in the life of men from time immortal. The progress of the nation lies in the hands of the people, who are healthy and physically fit. Every individual should develop physical fitness for a happy and effective living. In order to get physical fitness one has to involve in physical activities. Physical well-being is the prime necessity to live happily. It is said that activity is the first necessity of man. Unhealthy person cannot be cheerful physically fit means always unable to perform work for longer time with less expenditure of energy and much more efficiently. In good activity will solve many physical and physiological problems, the individual research evidence shows that inactivity creates problems of health. The tribal community is the real asset of the nation. They are like a national heritage. To study of tribal community boys are tomorrow's wealth of the nations. Their life style food habit, natural social culture, economical status, tribal health is different. Majority of the sports person is India are from rural and tribal area. The study will help to locate sports talent in tribal.

OBJECTIVES OF THE STUDY

- The objective of the study was to find out the status of motor fitness and physiological variables of West Bengal Tribal students.
- The purpose of the study was to find out the influence of different packages of physical activities programme.
- This study is bringing awareness about motor fitness and physiological variables of West Bengal tribal students.
- To awareness of different packages of systematic physical activity among the tribal students in West Bengal.
- To find out which training is more impact on west Bengal tribal students.

HYPOTHESES

It is hypothesized that there would be significant differences on selected motor fitness variables due to the different packages of physical activities programme of West Bengal tribal students.

It is hypothesized that there would be significant differences on selected physiological variables due to the different packages of physical activities among West Bengal tribal students.

METHODOLOGY

The purpose of the study to fine out the influence of different packages of physical activities programme on selected motor fitness and physiological variables of West Bengal tribal students. To achieve the purpose of the study eighty (N-80) West Bengal tribal Students were selected randomly. Their age ranged from 12 to 15. The subject chosen for the study was divided four group and designated as experimental group I, experimental group II experimental group III and experimental group IV, Each group 20 subject was selected randomly. Experimental group I was Callisthenic exercise group , II was Yogic exercise group , III was Traditional and recreational group was group and IV was control group did not participated in any of physical activates programme other than their regular physical activities. The subject were tested Speed and respiratory rate (pre-test) and the end of 12 week physical activates programme (post –test).The speed was measure by 50 meter dash, and respiratory rate measure by Nose Clip/Manually.

RESULTS OF THE STUDY

TABLE V-II

ANALYSIS OF CO-VARIANCE FOR SPEED ON PRE TEST AND POST TEST DATA OF EXPERIMENTAL GROUP AND CONTROL GROUP (in seconds)

Test		Callis-thenic group	Yogic group	Tra-di-tion-al and rec-rea-tion-al	Con-trol Group	Some of vari-ance	SS	df	MS	F ratio	P val-ue
Pree test	Mean	8.20	8.12	8.25	8.18	B	0.19	3	0.65	0.11	0.95
	SD	0.78	.69	0.73	0.79	W	42.69	76	0.56		
Post Test	Mean	7.86	8.08	7.97	8.20	B	1.27	3	0.42	0.85	0.47
	SD	0.66	.690	.68	0.78	W	37.90	76	0.50		
Adjusted Post test		7.84	8.15	7.92	8.20 W	B	1.79	3	0.60	7.36	0.00
							6.08	75	0.08		

* Significant at 0.05 level

Required table value for df(3&76) at 0.05 level = 2.73
(3&75) at 0.05 level = 2.75

It is derived from Table II that the pre-test means on speed of the experimental and control groups are 8.20, 8.12, 8.25, and 8.18 respectively. The obtained 'F' ratio value 0.95 for the pre-test mean is lesser than the required table value 2.73 for 3 & 76 degree of freedom at 0.05 level of confidence. There is no significant difference between the experimental and control group on speed for the pre-test data.

The post-test means on speed of the experimental and control groups are 7.86, 8.08, 7.97 and 8.20 respectively. The obtained 'F' ratio value .47 for the post-test data is greater than the required table value 2.73 for 3 & 76 degree of freedom at 0.05 level of confidence. It shows that there is no significant difference between the experimental and control group on speed following the experimental training.

The adjusted post-test means on speed of the experimental and control group are 7.84, 8.15, 7.92 and 6.96 respectively. The obtained 'F' ratio value 7.36 for the adjusted post-test data is greater than the required table value 2.75 for 3 & 75 degree of freedom at 0.05 level of confidence. It reveals that there is a significant difference between the experimental and control group on speed following the experimental training. Since the difference exists in the adjusted post-test mean, further multiple comparison tests were applied.

TABLE III

SCHEFFES POST HOC TEST FOR MEAN DIFFERENCE BETWEEN GROUPS ON SPEED

Callisthen-ic group	Yogic group	Traditional group	Control Group	Mean Dif-ference	C.I.
7.84	8.15			0.31	0.25
7.84		7.92		0.08	
7.84			8.20	0.36	
	8.15	7.92		0.21	
	8.15		8.20	0.05	
		7.92	8.20	0.28	

*Significant at 0.05 level

Table III Shows the paired mean differences among the three experimental groups namely calisthenics exercise, Yogic exercise group, recreational and traditional group. The confidence interval value at 0.05 levels is 0.25. The mean differences between Pilates exercise group and yogic group is 0.31, which is higher than the C.I. value. Therefore there is a significant difference between the callisthenic group and yogic exercise group. The mean difference between Calisthenics group and recreational and Traditional group is 0.08, which is lower than the C.I. value. Therefore there is no significant difference between the calisthenics exercise and recreational group. The mean difference between calisthenics exercise group and control group is 0.36, which is higher than the C.I. value. Therefore there is significant difference between the calisthenics exercise and control group. The mean difference between yogic exercise group and recreational and Traditional group is 0.21, which is lower than C.I. value. Therefore there is no significant difference between yogic exercise group and recreational and Traditional group. The mean difference between yogic exercise group and control group is 0.05, which is lower than the C.I. value. Therefore there is no significant difference between yogic exercise group and control group. The mean difference between recreational and traditional group and control group is 0.28, which is higher than the C.I. value. Therefore there is significant difference between the calisthenics group and combined group.

FIGURE –I

GRAPHICAL ILLUSTRATION OF PRE TEST, POST TEST AND ADJUSTED POST TEST MEAN OF CONTROL ANDEXPERIMENTAL GROUPS ON SPEED

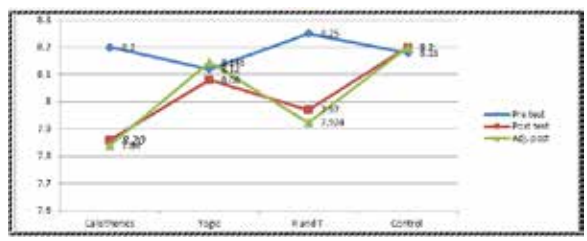


TABLE IV

ANALYSIS OF CO-VARIANCE FOR RESPIRATORY RATE ON PRE TEST AND POST TEST DATA OF EXPERIMENTAL GROUP ANDCONTROL GROUP (in seconds)

Test		Callis-thenic group	Yogic group	Tradi-tional and recre-ation-al	Con-trol Group	Some of var-iance	SS	df	MS	F ratio	P val-ue
Pree test	Mean	21.25	21.50	21.65	21.00	B	4.90	3	1.63	0.20	0.89
	SD	2.88	2.91	2.94	2.57	W	609.30	76	8.02		
Post Test	Mean	19.55	19.50	20.20	20.65	B	7.45	3	2.483	0.40	0.75
	SD	2.56	2.60	2.44	2.32	W	470.10	76	6.19		
Adjusted Post test		19.63	19.37	19.94	20.35 W	B	10.65	3	3.55	17.89	0.00
						14.88	75	0.20			

* Significant at 0.05 level

Required table value for df(3&76) at 0.05 level = 2.72
(3&75) at 0.05 level = 2.75

It is derived from Table IV that the pre-test means on respiratory rate of the experimental and control groups are 21.25, 21.50, 21.65, and 21.00 respectively. The obtained 'F' ratio value 0.89 for the pre-test mean is lesser than the required table value 2.73 for 3 & 76 degree of freedom at 0.05 level of confidence. There is no significant difference between the experimental and control group on speed for the pre-test data.

The post-test means on speed of the experimental and control groups are 19.55, 19.50, 20.20 and 20.65 respectively. The obtained 'F' ratio value 0.40 for the post-test data is lesser than the required table value 2.73 for 3 & 76 degree of freedom at 0.05 level of confidence. It shows that there is no significant difference between the experimental and control group on respiratory rate following the experimental training.

The adjusted post-test means on respiratory rate of the experimental and control group are 19.63, 19.37, 19.47 and 20.35 respectively. The obtained 'F' ratio value 17.89 for the adjusted post-test data is greater than the required table value 2.75 for 3 & 75 degree of freedom at 0.05 level of confidence. It reveals that there is a significant difference between the ex-

perimental and control group on speed following the experimental training. Since the difference exists in the adjusted post-test mean, further multiple comparison tests were applied

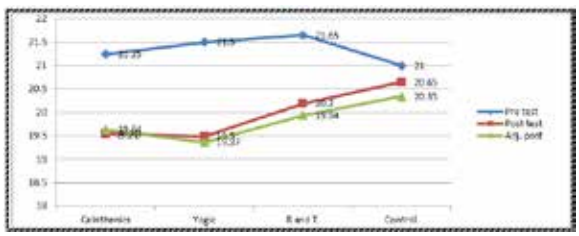
TABLE V
SCHEFFES POST HOC TEST FOR MEAN DIFFERENCE BETWEEN GROUPS ON RESPIRATORY RATE

Callisthenic group	Yogic group	Traditional group	Control Group	Mean Difference	C.I.
19.63	19.37			0.27	0.40
19.63		19.94		0.30	
19.63			20.35	0.71	
	19.37	19.94		0.57	
	19.37		20.35	0.98	
		19.94	20.35	0.41	

*Significant at 0.05 level

Table V Shows the paired mean differences among the three experimental groups namely calisthenics exercise, Yogic exercise group, recreational and traditional group. The confidence interval value at 0.05 levels is 0.40. The mean differences between Pilates exercise group and yogic group is 0.27, which is lower than the C.I. value. Therefore there is a no significant difference between the callisthenic group and yogic exercise group. The mean difference between Calisthenics group and recreational and Traditional group is 0.30, which is lower than the C.I. value. Therefore there is no significant difference between the calisthenics exercise and recreational group. The mean difference between calisthenics exercise group and control group is 0.71, which is higher than the C.I. value. Therefore there is significant difference between the calisthenics exercise and control group. The mean difference between yogic exercise group and recreational and Traditional group is 0.57, which is higher than C.I. value. Therefore there is a significant difference between yogic exercise group and recreational and Traditional group. The mean difference between yogic exercise group and control group is 0.98, which is higher than the C.I. value. Therefore there is a significant difference between yogic exercise group and control group. The mean difference between recreational and traditional group and control group is 0.41, which is higher than the C.I. value. Therefore there is significant difference between the calisthenics group and combined group

FIGURE –II
GRAPHICAL ILLUSTRATION OF PRE TEST, POST TEST AND ADJUSTED POST TEST MEAN OF CONTROL AND EXPERIMENTAL GROUPS ON RESPIRATORY RATE



DISCUSSION OF HYPOTHESIS

In the hypothesis , It is hypothesized that there would be significant differences on selected motor fitness variables due to the different packages of physical activities programme of West Bengal tribal students. The findings of the study on speed and respiratory rate reviled that the experimental groups namely Callisthenic exercise, Yogic exercise, Traditional and recreational group had significantly improved after the twelve week physical activities programme. Besides, the study indicated that there was a significant different between Callisthenic exercise group, Yogic exercise groups, Traditional and recreational activates group and control group. So in my study null hypothesis was rejected.

CONCLUSION

-In summary, the results of this investigation indicate that the entire three Experimental groups significantly improve on speed and respiratory rate. More specifically callisthenic exercise group is better Speed than the yogic exercise group, traditional and recreational activities and control group, Other yogic exercise group is better respiratory rate than the callisthenic exercise group, traditiona and recreational activities and control group.

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