EFFECT OF SELECTED EXERCISES ON ENDURANCE OF RURAL AND URBAN BOYS OF BA GENERAL PHYSICAL EDUCATION OF SANTIPUR COLLEGE

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INTRODUCTION

Physical exercises are principal means of training. Without physical exercises the sports training cannot lead to improvement in sports performance. Physical exercises have a direct effect on performance capacity. Exercises are used to prevent injury to improve performance and psychological preparation for any kind of physical activity. Fitness can be described as a condition that helps us for better look, pleasant feel and do our best. According to Nixon – "Physical fitness refers to the organic capacity of the individual to perform the normal task of daily living without under tiredness or fatigue having reserves of strength and energy available to meet satisfactorily any emergency demands suddenly placed upon him". Cardiorespiratory endurance indicate that the distance covered by the subjects in 12 minutes run-walk test was considered as the score and it was recorded in meter. Cardirespiratory endurance involved with the aerobic exercise. Aerobic literally means with O_2 and refers to use of O_2 in muscles energy generating process. It is a fabulous workout that not only helps in maintaining someone fitness level, but also makes their heart stronger. These are distinct form of aerobics like cycling, biking, jogging, running, swimming, dancing etc. which help to changes of having diabetes and other diseases are largely reduced.

METHODOLOGY

The total subjects of this study were 80 on BA General physical boys of Santipur College, age group ranging 18–21 years of forty boys from rural areas and for same from urban areas had been randomly selected of the study.

a) Criteria Measured: The personal data age (year), height (cm.) and weight (kg) were measured by date of birth certificate, Stadiometer and weighing machine. Endurance was measured by Cooper's 12 minutes run and walk test, the total distance of which was measured by meter of each of them.

b) Practice Schedule: Period of treatments was 8 weeks and each group practiced three days in a week for a duration of one hour per day from 3.30 pm to 4.30 pm.

Chart 1
Weekly Training Schedule

Day	Time	Duration	Procedure
Monday	3.30 pm.–3.45 p.m.	15 min.	Warm up with jogging, loosening exercises, striding, stretching, exercises, wind sprint.
	3.45 p.m.– 4.15 p.m.	30 min.	1) Walking – 600 m × 2 2) Run – 1000 m. × 2 3) Sit up – 50 times × 3 4) Pull up 10 times × 3
	4.15 p.m.– 4.30 p.m.	15 min.	Cooling down.
Wednesday	3.30 pm.– 3.45 p.m.	15 min.	Warm up with jogging, loosening exercise, striding stretching exercises, wind sprint
	3.45 p.m.– 4.15 p.m.	30 min.	1) Walking – 800 m × 2 2) Run – 1000 m. × 2 3) Run & Walking – 12 min. 4) Sit up – 50 times × 2
	4.15 p.m.– 4.30 p.m.	15 min.	Cooling down.
Friday	3.30 pm.– 3.45 p.m.	15 min.	Warm up with jogging, loosening exercise, striding stretching exercises, wind sprint
	3.45 p.m.– 4.15 p.m.	30 min.	1) Walking – 800 m × 3 2) Run – 1000 m. × 2 3) Run & Walking – 12 min. 4) Pull up – 10 times × 2 4) Sit up – 50 times × 2
	4.15 p.m.– 4.30 p.m.	15 min.	Cooling down

FINDINGS

Table 1
Comparison of Endurance of Experimental Pre Test and Control Pre Test of 18–21 years rural and urban boys

	Variables	Expt. Pre test Mean ± SD	Control Pre test Mean ± SD	SE_D	Obtained 't' value
Rural	Boys	2879.95 ± 137.25	2810.24 ± 113.87	39.87	1.75
Urban	Boys	2811.25 ± 114.74	2790.20 ± 110.25	35.58	0.59

*Significant at 0.01 level of significance $t_{(0.01)(78)} = 2.61$

Table 1 showed that the mean ± SD score of endurance of 18–21 years expt. pre test and control pre test of rural boys group were 2879.95 ± 137.25 & 2810.24 ± 113.87 respectively. The mean ± SD score of endurance of 18–21 years expt. pre test and control pre test of urban boys group were 2811.25 ± 114.74 & 2790.20 ± 110.25 respectively. The 't' value of rural and urban groups found to be insignificant at 0.01 level of significance as calculated t value is lesser than tabulated t value.

Table 2
Comparison of Endurance of Experimental Post Test and Control Post Test of 18–21 years rural and urban boys

	Variables	Expt. Post test Mean ± SD	Control Post test Mean ± SD	SE_D	Obtained 't' value
Rural	Boys	3099.05 ± 89.58	2812.14 ± 115.71	32.72	8.76**
Urban	Boys	2976.75 ± 130.16	2785.15 ± 108.31	37.86	5.06**

*Significant at 0.01 level of significance $t_{(0.01)(78)} = 2.61$

It was observed from Table 2 that the mean ± SD score of endurance of 18–21 years expt. post test and control post test of rural boys group were 3099.05 ± 89.58 & 2812.14 ± 115.71 respectively. The mean ± SD score of endurance of 18–21 years expt. post test and control post test of urban boys group were 2976.75 ± 130.16 & 2785.15 ± 108.31 respectively. Rural boys group 't' value were 8.76 and that of urban boys was 5.06, both were significant at 0.01 level.

Table 3
Comparison of Endurance of Experimental Pre test and Experimental Post test of 18–21 years rural and urban boys

	Variables	Expt. Pre test Mean ± SD	Expt. Post test Mean ± SD	SE_D	Obtained 't' value	Improvement Occurred
Rural	Boys	2879.95±137.23	3099.05±89.58	39.99	5.97**	7.60%
Urban	Boys	2811.25±114.74	2976.75±130.16	38.79	4.26**	5.88%

*Significant at 0.01 level of significance $t_{(0.01)(78)} = 2.61$

It was observed from Table 3 that the mean ± SD score of endurance of 18–21 years expt. pre test and expt.post test of rural boys group were 2879.95 ± 137.23 & 3099.05 ± 89.58 respectively. The mean ± SD score of endurance of 18–21 years expt. pre test and expt. post test of urban boys group were 2811.25 ± 114.74 & 2976.75 ± 130.16 respectively. Rural boys group 't' values were 5.97 and that of urban boys was 4.26, both were significant at 0.01 level. Improvement occurred in rural boys was 7.60% and in urban boys was 5.88%.

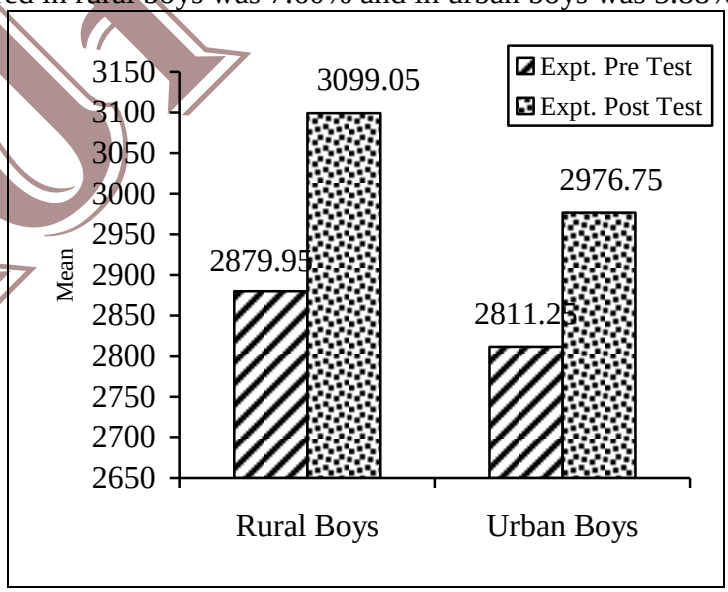

Fig. 1 : Mean Score of Experimental Pre Test and Post Test of Rural and Urban Boys

Table 4
Comparison of Endurance of Experimental Post Test of 18–21 years rural vs. urban boys

Variables	Expt. Post Test (Mean ± SD)		SE_D	Obtained 't' value
	Rural	Urban		
Boys	3099.05 ± 89.58	2976.75 ± 130.16	35.33	3.46*

*Significant at 0.01 level of significance $t_{(0.01)(78)} = 2.61$

It was observed from Table 4 that the mean ± SD score of endurance of 18–21 years rural expt. post test and urban boys were 3099.05 ± 89.58 & 2976.75 ± 130.16 and t value was 3.46 which was significant at 0.01 level. It was indicated that expt. post test mean scores of 18–21 years rural boys were higher than that of urban boys which implies better endurance of rural boys better than urban boys.

After eight weeks exercise programme endurance was increased of 18–21 years boys group. Reid et al. (1987), Gharote, M. L (1979), Cooper (1968), Barrik and Banerjee (1990) observed that after 6 weeks of conditioning programme, speed, endurance, strength, agility increased significantly.

CONCLUSION

The endurance of 18–21 years rural and urban boys was improved through the participation in exercise programme. Endurance of rural boys was more improved in comparison to that of urban boys of 18–21 years BA General physical education after participating in exercise treatment.

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