A COMPARATIVE STUDY OF PHYSICAL FITNESS COMPONENTS AMONG GOVERNMENT AND ADDED GIRLS DEGREE COLLEGE OF KANPUR

Alok Kumar Pandey
Assistant Professor Physical Education
R.S.Govt Degree College, Shivrajpur, Kanpur

Abstract

Hundred Graduation girls students (50 Govt. Degree College + 50 Added Degree College) from district of Kanpur, U.P. were randomly selected as subject for this study; age ranged from 18-21 years only. The purpose of the study was to compare physical fitness components among girls of government and added Girls degree colleges of Kanpur. All six physical fitness components (Upper Body Strength, Flexibility, Agility, coordinative Ability, Explosive strength, Speed, Endurance) were the variable for this study. The statistical technique 't' test was used to compare. The result shows that govt. girls college were better in physical fitness than Added degree college, Kanpur.

Introduction:-

Physical fitness comprises two related concepts general fitness a state of health and well- being and specific fitness a task-oriented definition based on the ability to perform specific aspects of sports or occupations. Physical fitness is generally achieved through exercise, correct nutrition and enough rest. It is an important part of life. In previous years, fitness was commonly defined as the capacity to carry out the day's activities without undue fatigue. However, as automation increased leisure time, changes in lifestyles following the industrial revolution rendered this definition insufficient. These days, physical fitness is considered a measure of the body's ability to function efficiently and effectively in work and leisure activities, to be healthy, to resist hypo kinetic diseases, and to meet emergency situations .Fitness has been the concern of man from times immemorial. In order to survive and enjoy his existence man has to be fit and healthy to overcome the diverse nature of his environment, by using various techniques and skills which might have given rise to various sports. Mental alertness and emotional stability are greatly influenced by our fitness. World Health Organization defines physical fitness as "a state of complete physical, mental and social wellbeing, not merely the absence of diseases" Being physically fit means living our fullest physical potential.

Fitness is closely associated with good health. In the past health meant only absence of disease but today we have much broader perspective and consider physical fitness to be a key component of total health. As a result people are becoming more interested in making fitness exercise an integral part of their life style.

Material and Methods

Selection of Subjects:-

Hundred college going students studying in Graduation from various government (50) as well as Added Private Colleges(50) from the various Districts of Kanpur were randomly selected to serve as subjects for the present study. The age of the subjects ranged from 18 to 21 years. The subjects were explained about the purpose of study in the presence of their physical education teachers and Principal to elicit active cooperation from the subjects. The fitness components then were measured by the application of appropriate test items .

Selection of Variable and Their Criterion Measures

Table 1 presents the components of physical fitness which were selected for the present study and were measured:

Table 1: Selected variables and their criterion measures

S. No.	Variables	Criterion measures	Units
1	Upper Body Strength	Flexed Arm Hang	Sec.
2	Flexibility	Bent Knee Sit-ups	Numbers
3	Agility	Shuttle Run	Sec.
4	Explosive Strength	Standing Broad Jump	Cent.
5	Speed	50 Yard Dash	Sec.
6	Endurance	600 Yard Run/Walk	Sec.

Statistical Technique:-The data was analyzed and compared with the help of statistical procedure in which arithmetic mean, standard deviation and t-test were used to compare the data.

Results:-

Mean and standard deviation of the selected dimensions of government college and add degree college students were computed. The results have been depicted in table 2 .

Table 2 : Mean and standard deviation of govt degree college female students

S.No	Variables	Group	Mean (X)	Standard Deviation
1	Upper Body Strength	Govt. college	8.64	1.52
		Added college	7.12	0.32
2	Flexibility	Govt. college	28.74	3.85
		Added college	29.6	3.14
3	Agility	Govt. college	9.58	0.6
		Added college	11.05	2.95

4	Explosive Strength	Govt. college	164.03	9.11
		Added college	152.28	12.54
5	Speed	Govt. college	7.64	0.35
		Added college	7.21	0.38
6	Endurance	Govt. college	2063.7	211
		Added college	2405.10	243

Table 3 : Mean, Standard Deviation and t value of Govt. and added college female students of variables upper body strength .

S. No.	Group	N	Mean	Standard Deviation	't' value
1	Government degree college	50	8.64	1.12	7.629*
2	Added Degree college	50	7.12	0.42	

** Significant at 0.05 level of confidence 't' > 1.98 (df = 98)*

Table 3 indicates that the mean and standard deviation values for upper body strength variable for Govt. Degree College and Added degree college students recorded were as 8.64, 1.12 and 7.12, 0.42, respectively. It shows that Govt. Degree college students have performed significantly better than their added .degree college counterparts. Further the calculated't' value of 7.629at 0.05 level of significance shows that there exists a highly significant difference between the means of this variables because this value is higher than the 't' table value of 1.96.

Table 4 : Mean, Standard Deviation and t value of govt. and added college female students of variables flexibility (Bent knee sit ups).

S. No.	Group	N	Mean	SD	't' value
1	Government degree college	50	28.91	3.85	
2	Added degree college	50	29.6	3.14	2.14*

** Significant at 0.05 level of confidence't' > 1.98 (df = 198)*

The analysis of table 4 shows that the mean and standard deviation value on the flexibility variable of the govt. degree college and Added degree college were recorded as 28.91, 3.85 and 29.60, 3.14 respectively. It depicts that the Added .Govt. college students have performed significantly better as compared to their govt. degree college counterparts. Further the calculated 't' value 2.14 at 0.05 level of significance shows that there exists a significant difference between the means of this variable because this value is higher than the 't' table value of 1.96.

Table 5 : Mean, Standard Deviation and t value of Govt. and added college students of variables Agility.

S. No.	Group	N	Mean	SD	't' value
1	Government Degree college	50	9.58	1.2	
2	Added Degree college	50	11.05	2.95	9.72*

** Significant at 0.05 level of confidence 't' > 1.98 (df = 198)*

The results in table 5 shows that the mean and standard deviation values on the agility variable for the govt degree college and Added degree college were recorded as 9.58, 1.2 and 11.05, 2.95 respectively. Therefore, the Govt. Degree college students have performed significantly better than their Added college counterparts. Further the calculated't' value 9.72 at 0.05 level of significance shows that there exists a highly significant difference between the means of this variable because this value is higher than the 't' table value of 1.96.

Table 6 : Mean, Standard Deviation and t value of Govt. and added college students of variables explosive strength.

S. No.	Group	N	Mean	SD	't' value
1	Government Degree college	50	164.03	7.31	
2	Added degree Dollege	50	152.28	12.54	2.82*

** Significant at 0.05 level of confidence 't' > 1.98 (df = 198)*

The results in table 6 reveals that the mean and standard deviation values on the agility variable for the Govt. Degree college and Added Degree college were recorded as 164.03, 7.31and 152.28, 12.54 respectively. Therefore, the Govt. Degree college students have performed significantly better than their Added college counterparts. Further the calculated't' value 2.82 at 0.05 level of significance shows that there exists a highly significant difference between the means of this variable because this value is higher than the 't' table value of 1.96.

Table 7 : Mean, Standard Deviation and t value of Govt. and added college students of variables speed.

S. No.	Group	N	Mean	SD	't' value
1	Government degree college	50	7.64	0.35	
2	Added degree college	50	7.21	0.38	9.85*

** Significant at 0.05 level of confidence 't' > 1.98 (df = 198)*

Perusal of the table 7 indicates that the mean and standard deviation values on the speed variable for Govt. degree college and Added degree college students were recorded as 7.64, 0.35 and 7.21, 0.38 respectively. Therefore, the Added .Govt. degree college students have performed significantly better than their Govt. college counterparts. Further the calculated‘t’ value 9.85 at 0.05 level of significance shows that there exists a highly significant difference between the means of this variable because this value is higher than the ‘t’ table value of 1.96.

Table 8 : Mean, Standard Deviation and t value of Govt. and added college students of variables Endurance

S. No.	Group	N	Mean	SD	‘t’ value
1	Government degree college	50	2063.7	211	13.42*
2	Added degree college	50	2405.10	243	

** Significant at 0.05 level of confidence ‘t’ > 1.98 (df = 198)*

Analysis of the table 8 shows that the mean and standard deviation values on the endurance variable for Govt. Degree College and Added degree college students were recorded as 2063.7, 211 and 2405.10, 243 respectively. Therefore, the Govt. Degree College students have performed better than their Added Degree College counterparts. Further the calculated‘t’ value 13.42 at 0.05 level of significance that there exists a highly significant difference between the means of this variable because this value is higher than the ‘t’ table value of 1.96.

Discussion

From the results obtained in this study it was observed that the Government Degree college students (female) subjects were significantly superior in the physical fitness components like Upper body strength, Agility, Explosive strength ,and Endurance when compared to their Added Degree College counterparts of the same age group. Added College female subjects on the other hand were found to have more flexibility and speedy as compared to their Govt. college counterparts.

Muscular strength, one of the main components of physical fitness has been found to be superior in the Govt. Degree college as they were situated in rural areas as compared to add college which situated in cities. This superiority in fitness variables of Govt. college students is due to active life style and involvement in vigorous physical activity in rural areas. However students who study in cities were found to be superior only in flexibility and speed. This difference in physical fitness between government degree college and add college subjects shows that computerization, automation and technological advances have changed the life style of add colleges people and minimized the opportunities for vigorous physical activity to cause physical exertion, which has led to the deterioration of physical fitness in them.

Conclusion

Within the limits and limitations of this study it may be concluded that Government degree college female students are comparatively better than the added govt. college female students of Kanpur. This shows that regular physical activity produces physical fitness improvements as village life is more active in nature than the life in urban set-ups where modern technological changes have reduced the physical exertion.

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