Abstract

Health related physical fitness is an important aspect of an individual. A physical fit person is an asset for society and an unhealthy person is burden for society, with keeping this aspect in mind, scholar had selected this problem. The purpose of this study was to compare the health related physical fitness between govt. school and public school of Kanpur city. The thirty (30) boys from government and thirty (30) boys from public school were selected as the subjects. Moti Lal Khewadiya Inter College as a Public School and D.P.S. Nagar Nigam Inter College as a Govt. School for the study respectively. The health related physical fitness was body composition, flexibility, muscular endurance, and Muscular Strength. The study showed significant differences between Govt. school and public school in relation to health related physical fitness. IN case of Body composition, Muscular endurance, muscular strength, and flexibility the ‘t’ ratio was 6.272*, 1.367*, -1.214* and 1.101* respectively.

1. Introduction

Physical fitness has been of great significance in the lives of human beings form times immemorial. In the pre historic times, physical fineness was the key element for the survival of a human being. People during those times were confronted with hostile environment and only fit individuals could survive. Hence survival of the fittest was the dictum. Even the civilization of Sparta, Athens and Rome in the history of the world has stressed physical fitness or physical training as an important objective of the educational programme. A specified level of physical fitness, which is turn may improve one’s self concept should be developed prior to participation in leisure activities if maximum social benefit are to be gained from this participation. Perhaps an even moves important aspect movement in the possible prevention of degenerative and cardio-vascular disease. There is more and more evidence to indicate that a regular exercise programme
keeps the cardio-vascular system as well as other system of the body in good conditions. Exercise developed the heart, lung so that are able to supply oxygen to the muscles without strain. An exercise programme helps one maintain desirable weight, and it helps prevent the weight gain lower back pain loss of flexibility and other degenerative disease often associate with aging.

Physical fitness is a matter of fundamental important to individual well-being and to the progress and security of nation. It is the basis for all other forms of excellence. With increased mechanization there has been a corresponding decrease in the number of tasks that require an expenditure of energy sufficient vigorous exercise are not done to develop and maintain adequate level of fitness many individual must really on various form of exercise to attain an acceptable level of physical fitness. It is an individual matter and as such has little meaning unless viewed in relation to the specific need of each individual. The amount of activity required by each individual in performing every day task may be determined by the kind and degree of physical fitness that is necessary.

2. Materials and Methods
A total sixty (60) students were chosen for the study. The research scholar has selected thirty (30) boys student of government school and thirty (30) boy’s student of public school respectively from Kanpur district in a random form. The age of the subjects ranged from 12-16 years. The researcher has chosen Moti Lal Khewadiya Inter College as a Public School and D.P.S. Nagar Nigam Inter College as a Govt. School respectively. The selected physical fineness components such as body composition, muscular endurance. Strength, flexibility were administered to test the physical fineness of the students.

3. Criterion Measure
The criterion measures chosen for testing the hypothesis were as follows: -

I. Body composition: - it was in measured in mm by skin fold caliper.
II. Muscular endurance: - the numbers of completed bent knee sit ups in one minute were recorded.
III. Muscular strength: - maximum lift by a subject recorded in K.g.
IV. Flexibility: - it was recorded in cm by sit and reach test.

4. Reliability of Data
The reliability of data was ensured by establishing the instrument reliability the tester competency and test retest method. The reliability coefficient of the test of Govt. school and public school students in shown in table1.

Table -1: Reliability Of Coefficient Of Test Retests Scores Of Government School And Public School Students

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Variables</th>
<th>Correlation of Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Body composition</td>
<td>0.86</td>
</tr>
<tr>
<td>2.</td>
<td>Muscular endurance</td>
<td>0.88</td>
</tr>
<tr>
<td>3.</td>
<td>Muscular strength</td>
<td>0.89</td>
</tr>
<tr>
<td>4.</td>
<td>Flexibility</td>
<td>0.89</td>
</tr>
</tbody>
</table>
4.1 Instrument Reliability
The measuring tape, skin fold caliper were used in this study were manufactured by renowned concern and compare their calibration was considered adequate for the purpose of the study.

4.2 Statistical Analysis
To compare the physical fitness of Govt. School and Public School student’s t’ test was used. The level of significance was set at 0.05.

5. Results and Discussion
The statistical Analysis of data on selected physical fitness component of public school and govt. school students is presented in this chapter. Each group consisted 30 subjects. In order to determine the significance of difference between means of public and Govt. school students in each of the selected physical fitness components, the level of significance was set at 0.05.

The significance of difference between the means of different physical fitness components of public and Govt. school worked out by following formula:-

\[ T = \frac{DM}{\sigma_{DM}} \]

Where, DM is Difference between both the mean.
\( \sigma_{DM} \) is standard error of the difference between the means.

Table-2: Significance Of Difference Of Mean Of Public School And Govt School Boys In Body Composition

<table>
<thead>
<tr>
<th>School</th>
<th>Mean</th>
<th>S.D</th>
<th>Differ B/w mean</th>
<th>‘t’ ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public School</td>
<td>22.8033</td>
<td>2.34925</td>
<td>5.90333</td>
<td>6.272*</td>
</tr>
<tr>
<td>Govt. boys school</td>
<td>16.9</td>
<td>4.58897</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*‘t’ 0.05 (58)=2.00

It is evident from the table-2 that there was significant difference exists between the public school and govt. boys school boys in the body composition, since the calculated ‘t’ value 6.332 which was found to be more than tabulated ‘t’ value 2.00.

Body composition mean of public school was more (22.8033) in comparison to govt. boy’s school (16.9).

![Figure-1](image)
Table 3: Significance Of Difference Of Mean Of Public School And Govt School Boys In Muscular Strength

<table>
<thead>
<tr>
<th>School</th>
<th>Mean</th>
<th>S.D</th>
<th>Differ B/w mean</th>
<th>‘t’ ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public School</td>
<td>52.70</td>
<td>10.76761</td>
<td>3.80</td>
<td>1.367*</td>
</tr>
<tr>
<td>Govt. boys school</td>
<td>48.90</td>
<td>10.76505</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*’t’ 0.05 (58)=2.00

It is evident from the table-3 that there was significant difference exists between the public school and govt. boys school boys in the muscular strength, since the calculated ‘t’ value 1.367 was found to be less than tabulated ‘t’ value 2.00. Muscular strength mean of public school was more (52.70) in comparison to govt. school (48.90).

Table 4: Significance Of Difference Of Mean Of Public School And Govt School Boys In Muscular Endurance

<table>
<thead>
<tr>
<th>School</th>
<th>Mean</th>
<th>S.D</th>
<th>Differ B/w mean</th>
<th>‘t’ ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public School</td>
<td>16.2667</td>
<td>1.76036</td>
<td>-.76667</td>
<td>-1.214</td>
</tr>
<tr>
<td>Govt boys school</td>
<td>17.0333</td>
<td>2.97673</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*’t’ 0.05 (58)=2.00

It is evident from the table-4 that there was significant difference exists between the public school and govt. boys school boys in the muscular strength, since the calculated ‘t’ value -1.214 was found to be less than tabulated ‘t’ value 2.00.

Muscular strength mean of Govt. Boys school was more (17.0333) in comparison to public school (16.2667).
Table-5: Significance Of Difference Of Mean Of Public School And Govt School Boys In Flexibility

<table>
<thead>
<tr>
<th>School</th>
<th>Mean</th>
<th>S.D</th>
<th>Differ B/w mean</th>
<th>‘t’ ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public School</td>
<td>8.2233</td>
<td>1.63342</td>
<td>-0.67667</td>
<td>-1.101</td>
</tr>
<tr>
<td>Govt boys school</td>
<td>8.9000</td>
<td>2.94501</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*’t’ 0.05 (58)=2.00

It is evident from the table-5 that there was significant difference exists between the public school and govt. boys school boys in the Flexibility, since the calculated ‘t’ value -1.101 was found to be less than tabulated ‘t’ value 2.00. Flexibility means of Govt. Boys school more (8.9000) in comparison to public school (8.2233).
The finding of the study indicated that there was a statistically significant difference between government school boys and public school boys on selected health related physical fitness components such as body composition, muscular strength, muscular endurance and flexibility.

The results of study indicated that the mean of Body composition in Public school boys were more in comparison to govt. boys school. The reason for this was attributed to the subjects selected for the study was from high economic status, and they were more instance of food especially consuming junk food. One of the other reasons may be less participation in physical activity and more emphasized on academic part.

Govt. Boys school showed a high mean value in Muscular Strengths, Muscular Endurance and Flexibility. The reason for this attributes to their more involvement in physical work, off and on the field. The subjects were from middle class family and therefore more involved in their household activity and walked 3-4 km a day while coming to school. Participation in games class was compulsory of them. These all reason contributed to make them more physically fit in terms of selected variables.

5.1 Discussion of Hypothesis

In the beginning of the study, it was hypothesized that there would be significant different between govt. school and public school in relation to health related physical fitness components. In addition, results of the study showed that the hypothesis was accepted.

6. Conclusions

i.) There was significant difference of health related physical fitness between public school and Govt. School.

ii.) Body composition and muscular strength means of public school was more in comparison to govt. boy’s school.

iii.) Govt. Boys school showed a better performance in Muscular endurance and flexibility.

7. Recommendations

On the basis conclusion the following recommendations are drawn:

i.) Govt. Boys school was better in relation of Muscular Endurance and Flexibility to Public School.

ii.) Similar study can be conducted taking large sample size and other type of school.

iii.) Similar study can be conducted at Regional basis.

iv.) Similar study could be conducted among professional college and institute.

References


[2] Castelli DM, Hillman CH, Buck SM, Erwin HE, “ Physical Fitness and Academic Achievement in third- And fifth-grade Students” Department of Kinesiology and community health, University of Illinois, Urbana, IL, USA: J Sport Exerc Psychol. 2007 Apr; 29

[3] Curitan, Jr Thomas K., “ Physical fitness Champion Athlete” (the university of locudo press, 1951


