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ANALYSIS OF SELECTED PHYSIOLOGICAL PARAMETERS AMONG GOVERNMENT SCHOOL STUDENTS, GOVERNMENT AIDED SCHOOL STUDENTS AND SPORTS HOSTEL SCHOOL STUDENTS OF NORTH KARNATAKA STATE

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Abstract

The purpose of the study was to analysis of selected physiological parameters among Government, Government Aided and Sports Hostel School students of North Karnataka State. To achieve this purpose, one hundred and twenty (N=120) athletes who had participated in the interschool competition in north Karnataka State during the year 2014-2015 were selected randomly from each category of Government School, Government Aided School and Sports Hostel thus a total of 120 athletes from the selected School in North Karnataka State. The athletes' age ranged between 16 and 18 years. Among various physiological parameters Respiratory Rate only selected as dependent variables and it was assessed by Manuel method. All the subjects were tested on the selected dependent variables. The data were collected from the Government School, Government Aided School and Sports Hostel Students who had participated in the intercollegiate tournament in North Karnataka State. The experimental design for the study was static group comparison design. One-way Analysis of variance (ANOVA) was used to find out the difference among the Government School, Government Aided School and Sports Hostel Students on the selected variable. As the obtained F-ratio was significant, the Scheffe's test was used as a post-hoc test to find out the significant difference between each cell. In all the cases, 0.05 level of significance was used to test the hypotheses. The results of the study showed that there was a significant difference among Government School, Government Aided School and Sports Hostel Students on the selected Physiological Parameter such as Respiratory Rate. Further the results of the study showed that Sports hostel students was better than Government school students and government aided school students of North Karnataka State.

Keywords: Respiratory Rate, Government, Government Aided and Sports Hostel

Introduction

Sports by their very nature are enjovable, challenging, absorbing and require a certain amount of skill and physique. In the order of human values conquest in the field of sports holds a unique place. It is a combination of success, victory, triumph and domination of some over other team mates and friends. Fitness has become a national concern basically, fitness means, being able to sanction at one's best level. But perfect fitness for living necessarily involves spiritual, mental, emotional, social and physical qualities (Frant, 1973). Physical fitness is being accepted as one of the vital objectives of Physical education. The adaptive capacity of the individual to the vigorous at work is determined by his physical fitness (Sarah, 1950).Physical fitness is the ability of the person's body to meet the demands placed upon it by his works, by his way of life and by the necessity to meet emergencies. Respiratory by respiration rate is also known rate, pulmonary ventilation rate, ventilation rate, or breathing frequency is the number of breaths taken within a set amount of time, typically 60 seconds. A normal respiratory is termedeupnea. an increased rate respiratory rate is termed tachypnea and lower than the normal respiratory rate is termed bradypnea.Glavde (1994) said that the respiratory rate is slightly quicker in men than in women. The normal respiratory rate for the new born child is forty. At twelve months it is thirty and two to five years it is twenty four and in adults it is ten to twenty minute.

Methodology

To achieve this purpose, one hundred and twenty (N=120) athletes who had participated in the inter-school competition in North Karnataka State during the year 2014-2015 were selected randomly from each category of Government School, Government Aided School and Sports Hostel. The athletes' age ranged between 16 and 18 years. Among various physiological parameters Respiratory Rate only selected as dependent variables and it was assessed by Manuel method. The data were collected from the Government School, Government Aided School and Sports Hostel Students who had participated in the inter-collegiate tournament in North Karnataka State. The experimental design for the study was static group comparison design. One-way Analysis of variance (ANOVA) was used to find out the difference among the Government School, Government Aided School and Sports Hostel Students on the selected variable. As the obtained F-ratio was significant, the Scheffe's test was used as a post-hoc test to find out the significant difference between each cell. In all the cases, 0.05 level of significance was used to test the hypotheses.

Analysis of the data

The analysis of variance for the data obtained on Respiratory Rate of Government School Students, Government Aided School Students and Sports Hostel Students were analyzed and the results are presented in Table -I.

| 1 able-1 |
|--|
| ANALYSIS OF VARIANCE ON RESPIRATORY RATEOF GOVERNMENT SCHOOL |
| STUDENTS, GOVERNMENT AIDED SCHOOL STUDENTS AND SPORTS HOSTEL |
| STUDENTS |

| Mean ± | Standard Devi | ard Deviation | | | G 6 | | |
|----------------------------------|---|------------------------------|---------------------------|-----|-------------------|----------------|-----------------|
| Government School Students | Government Aided School Students | Sports Hostel Students | Sources of Variance | df | Sum of Squares | Mean Square | Obtained "F" |
| 17.95 | 17.30 | 16.63 | SSB | 3 | 35.12 | 17.56 | 6.76* |
| ±2.35 | ±1.14 | ±0.98 | SSW | 117 | 303.68 | 2.60 | |

*Significant at 0.05 level.

(Respiratory Rate Scores is in Numbers/seconds) (The table value required for significance at 0.05 level with df2 and 117 is 3.07)

Table-I shows that the mean and standard deviation values on Respiratory Rate of Government School Students, Government Aided School Students and Sports Hostel Students are 17.95 ± 2.35 , 17.30 ± 1.14 , 16.63 ± 0.98 and 16.63 ± 0.98 respectively. The obtained F-ratio value among Government School Students, Government Aided School Students and Sports Hostel Students is 6.76. The obtained F-ratio value is greater than

the table value of 3.07 with df 2 and 117 required for significance at 0.05 level. The results of the study indicate that there is a significant difference among the means of Government School Students, Government Aided School Students and Sports Hostel Students on Respiratory Rate. To find out which of the four paired means had a significant difference, the Scheffe's post-hoc test was applied and the results are presented in Table-II.

Table-II

SCHEFFE'S TEST FOR THE DIFFERENCES BETWEEN THE PAIRED MEANS OF GOVERNMENT SCHOOL STUDENTS, GOVERNMENT AIDED SCHOOL STUDENTS AND SPORTS HOSTEL STUDENTS ON RESPIRATORY RATE

| Adj | usted Post-test M | | | |
|----------------------------------|--|---------------------------|--------------------|------------------------|
| Government School Students | Government Aided School Students | Sports Hostel Students | Mean Difference | Confidence Interval |
| 17.95 | 17.30 | | 0.65* | 0.35 |
| 17.95 | | 16.63 | 1.32* | 0.35 |
| | 17.30 | 16.63 | 0.67* | 0.35 |

*Significant at 0.05 level.

Table- II shows that the mean difference in Respiratory Rate between School Students Government and Government Aided School Students, Government School Students and Sports Hostel Students, Government Aided School and Sports Hostel Students are 0.65, 1.32 and 0.67 respectively, which are higher than the confidence interval value of 0.05 at 0.35 level of confidence. The result of the study indicates that there is a significant difference between Government School Students and Government Aided School Students.



Figure- I:

Mean values of government school students, government aided school students and sports hostel students on respiratory rate (in numbers/seconds)

Conclusion

From the analysis of the data, the following conclusions were drawn. There was a significant difference among Government School, Government Aided School and Sports Hostel Students on the selected Physiological Parameter such as Respiratory Rate. Further the results of the study showed that Sports hostel students was better Respiratory Rate when compare to the Government school students and government aided school students of North Karnataka State.

Government School Students and Sports Hostel Students, Government Aided School and Sports Hostel Students on Respiratory Rate. However, the mean value of Sports Hostel Students is found to be higher than School Government Students and Government Aided School Students on Respiratory Rate.The mean values of Government School Students, Government Aided School Students and Sports Hostel Students on Respiratory Rate are graphically represented in the Figure -I.

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