



RESEARCH ARTICLE

**COMPARATIVE ANALYSIS OF SPORTS SCHOOLS AND NORMAL SCHOOLS STUDENTS ON
PHYSICAL FITNESS AND MENTAL HEALTH STATUS**

Martin Babu Panackal¹, Dr. Tony Daniel² and Dr. George Abraham^{3*}

¹Lecturer in Physical Education, Mangalam College of Education, Ettumanoor, Kottam, Kerala, India

²Research Guide, Vinayaka Mission University, Salem, Tamil Nadu, India

³Assistant Professor, Department of Physical Education and Sports Sciences, Annamalai University, Tamil Nadu, India

ARTICLE INFO

Article History:

Received 15th August, 2011

Received in revised form

17th October, 2011

Accepted 27th November, 2011

Published online 31st December, 2011

Key words:

Physical fitness,
Mental health,
Sports schools,
Normal schools.

ABSTRACT

The purpose of this investigation was to analyse the sports schools and normal schools students on physical fitness and mental health status at secondary level. Fifty boys and fifty girls students from sports schools (N=100) and fifty boys and fifty girls students from normal schools (N=100) were selected as subjects and their aged ranged from 13 to 15 years. Physical fitness and mental health status were selected as dependant variables in this study. The physical fitness was measured by using one minute sit ups, sit and reach test, half squat jump test, Harvard step test, standing broad jump, stork stand and shuttle run and mental health status was assessed by using Gireesan and Sanandaraj test. The obtained data were statistically assessed for any significant difference using Karl Pearson's product moment coefficient of correlation and 'Z' test. The result showed that. The results obtained from analysis that mental health of boys in sports schools increases with increases in physical fitness in a moderate level than the boys in normal schools. And also reveals that mental health of girls in sports schools increases with increases in physical fitness in a moderate level than girls in normal schools.

Copy Right, IJCR, 2011, Academic Journals. All rights reserved.

INTRODUCTION

Health and physical education form an integral part of the educational process they contribute all round development of human personality especially in nurturing health, strength and fitness of body, endurance, courage, decision making, resourcefulness, respect for others, faith fullness, loyalty to duty and concern for the common goal (Aggarwal, 2000). Physical education is probably governed by method, order, discipline and procedure (Charls and Young, 1995). In recent times the concept of physical education has been accorded due importance, attention and recognition by the society. In the past it was opined that physical education was meant for those are gifted with physical strength and powers (Ajmeer and Jagdish, 2004). Physical fitness is more than possession of strength and endurance. Physical Fitness is a quality of life it is a condition that helps a persons to look and feel well to carry out his or her daily duties and to have enough reserve energy to enjoy other interests (Johnson and Nelson, 2002 and Johnson and Gracia, 2001). Mental health can be defined as a state of well being accompanied by satisfactory growth and development, relatively good adjustment and the ability to manage stress effectively. Dandeker and Mahija (2004) defined it is a positive but relative quality of life; it is a condition which is the characteristics of average person who

meet the demands of life on the basis of his own capacities and limitations. Mental health is an important factor influencing individuals various behaviors, activities, happiness and performance (Walter & Meredith, 1973 and Anastasi, 1996). It enables an individual to understand the mind, the emotions, the instincts, and the tendencies (Lokesh, 2005). That means it is the proper use of emotions and also leads to understanding other emotions, traits and behavior (Bhatia, 1995 and Chauhan, 2002). This normal emotional development in a child leads to the maturity of mental life of an adult with love and security and child grows up as useful member of the society (Lyms, 1998).

MATERIALS AND METHOD

The purpose of the study was to analyse the sports schools and normal schools students on physical fitness and mental health status at secondary level. For achieving this study fifty boys and fifty girls students of (N=100) four sports school from Kottayam, Ernakulam, Trissur and Kozhikodu districts and fifty boys and fifty girls students of two normal schools from Kerala state, India (N=100) were selected as subjects and the age of students were between 13 and 15 years. Physical fitness and mental health status were selected as dependant variables in this study. The physical fitness was measured by using one minute sit ups, sit and reach test, half squat jump test, Harvard

*Corresponding author: profgeorgeabraham@gmail.com

Table I. The percentage of Physical Fitness level of students from sports schools

Sl. No.	Physical Fitness level	Range of scores	Number of students	Percentage
1	High Physical Fitness	765 and above	29	29%
2	Average Physical Fitness	Between 411-764	67	67%
3	Low Physical Fitness	Below 411	4	4%
Total			100	100%

Table II. The data and results of Physical Fitness level of students from normal schools

Sl. No.	Physical Fitness level	Range of scores	Number of students	Percentage
1	High Physical Fitness	515 and above	18	18%
2	Average Physical Fitness	Between 244-514	59	59%
3	Low Physical Fitness	Below - 244	23	23%
Total			100	100%

Table III. The percentage of Mental Health status of students from sports schools

Sl. No.	Mental Health status level	Range of scores	Number of students	Percentage
1	High Mental Health	245 and above	32	32%
2	Average Mental Health	Between 203-244	65	65%
3	Low Mental Health	Below 203	3	3%
Total			100	100%

Table IV. The percentage of the Mental Health status of students from normal schools

Sl. No.	Mental health status level	Range of scores	Number of students	Percentage
1	High Mental Health	299 and above	19	19%
2	Average Mental Health	Between 178-228	56	56%
3	Low Mental Health	Below 178	25	25%
Total			100	100%

Table V. Significant difference in Mental Health of boys and girls in sports schools and normal schools

Category	N	Mean	S.D	C.R Z-value	Level of significance
Mental Health of boys in sports schools	50	225.86	19.89	4.64	p<0.01
Mental Health of boys in normal schools	50	204.94	25.60		
Mental Health of girls in sports schools	50	223.06	21.89	4.15	p<0.01
Mental Health of girls in normal schools	50	203.36	25.57		

Table VI. Correlation between Physical Fitness and Mental Health of students in sports schools and normal schools

Variables	N	r	SE ²	Confidence interval	Level of significance
Physical Fitness of students in sports school	100	0.5079	0.1015	0.28 - 0.67	Significant
Mental Health of students in sports schools					
Physical Fitness of students in normal schools	100	0.61	0.1015	0.42 - 0.75	Significant
Mental Health of students in normal schools					

Table VII. Correlation between Physical Fitness and Mental Health status of boys in sports schools and normal schools

Variables	N	r	SE ²	Confidence interval	Level of significance
Physical Fitness of boys in sports schools	50	0.590	0.15	0.28 - 0.79	Significant
Mental Health of boys in sports schools					
Physical Fitness of boys in normal schools	50	0.704	0.15	0.45 - 0.85	Significant
Mental Health of boys in normal schools					
Physical Fitness of girls in normal schools	50	0.684	0.15	0.41-0.84	Significant
Mental Health of girls in normal schools					
Physical Fitness of girls in sports schools	50	0.596	0.15	0.28-0.79	Significant
Mental Health of girls in sports schools					

step test, standing broad jump, stork stand and shuttle run and mental health status was assessed by using Gireesan and Sanandaraj test. Data of physical fitness and mental health were collected from sports school and normal school students and compared any significant difference between sports and normal school students and calculated any relation between physical fitness and mental health status of sports and normal school boys and girls students.

Statistical Techniques

Mean and standard deviation were calculated for physical fitness and mental health for each group. And the data were

analyzed by using Z-test and Pearson’s product moment coefficient correlation. Level of significance was set to 0.01.

RESULTS AND DISCUSSION

Table I, shows that, of total sample of 100 students from sports schools, 29 students have high physical fitness (765 and above), 67 students have average physical fitness (between 411 and 764) and 4 students have low physical fitness (below 411). So it can be concluded that majority of students in sports schools at secondary level have average level of physical fitness. Table II, shows that of total sample of 100 students

from normal schools, 18 students have high Physical Fitness (515 and above), 59 students have average physical fitness (between 244 and 514) and 23 students have low physical fitness (below 244). So it can be concluded that majority of students in normal schools at secondary level have average level of physical fitness. Table III, shows that of total sample of 100 students from sports schools, 32 students have high mental health (245 and above), 65 students have average mental health (between 203 and 244) and '3' students have low mental health (below 203). So it can be concluded that majority of students in sports schools at secondary level have average level of mental health. Table IV, reveals that of total sample of 100 students from normal schools, 19 students have high mental health (229 and above), 56 students have average mental health (between 178 and 228) and 25 students have low mental health (below 178). So it can be concluded that majority of students in normal schools at secondary level have average level of mental health. Table V, reveals that the mental health of boys in sports schools is significantly higher than that of boys in normal schools. And also it reveals that the mental health of girls in sports school is significantly higher than that of girls in normal schools. Table VI, shows that the mental health of sports schools students increased in physical fitness in a moderate level. A value of 0.5079 indicates a moderate correlation between the two variables. And it also reveals that mental health of students in normal schools increases with increase in physical fitness in a substantial level. A value of 0.61 indicates a substantial correlation between the two variables. The table VII reveals that mental health of boys in sports schools increases with increases in Physical Fitness in a moderate level than the boys in normal schools. And also reveals that mental health of girls in sports schools increases with increases in physical fitness in a moderate level than girls in normal schools.

Conclusion

The findings of the study revealed that there is a significant relationship between physical fitness and mental health status of secondary school students in sports schools and normal schools. That means better physical fitness result in better mental health of students in sports schools and normal schools at secondary level. Mental health of students in sports school was found to be higher than that of those in normal schools. This may be due to fact that a physically healthy person is more confident and also free from health problems.

But the students in normal schools have only limited opportunity to get engaged in the physical activities when compared with their counter parts at sports schools. Physical exercises help in the development of motor skills. Good health practices contribute a lot to the emotional development and cultivate a more positive self concept.

REFERENCES

- Aggarwal, J.C. 2000. *Health and Physical Education*. New Delhi: Shirpa Publications,(2nd ed.). p. 12.
- Anastasi, Anne. 1996. *Psychological Testing*. New York: Mc Millan Company. (3rd ed.).pp.18-21.
- Bhatia, Manjraj. 1995. *A Text Book on Educational Psychology*. New Delhi: Mc Millan India Ltd. (7th ed.). pp.64-73.
- Brog, Walter, R. and Gall Mereditho. 1973. *Educational Research an Introduction*. New York: David MC Kay Company Inc. (2nd ed.).p.140.
- Chauhan, S.S. 2002. *Advanced Educational Psychology*. New Delhi: Vikas Publishing House Pvt. Ltd. (6th ed.). pp.26-28.
- Dandekar,W.W. and Sanyoglata Mahija. 2004. *Psychological Foundations of Education*. New Delhi: Mc Millan India Ltd. (3rd ed.).pp.35-39.
- Johnson, Barry. L., and Nelson, Jack. K. 2002. *Practical Measurement for Evaluation in Physical Education*. New Delhi: Surjeet Publication.(10th ed.). pp.188-210.
- Johnson, Barry. L., and Mary, J. Gracia. 2001. *Fitness and Performance for Everyone*. Portland, Texas: Brown and Little Man Books .pp.127-130.
- Koul, Lokesh. 2005. *Methodology of Educational Research*. New Delhi: Vikas Publishing House. pp. 165-184.
- Lyms, J.S. 1998. *Understanding of the Mental Health Needs of Children and Adolescents in Residential Treatment*. Professional Psychology: Research and Practice. 29, pp. 582-589.
- McColy, Charles. H., and Norma, D. Young. 1995. *Test and Measurements in Health and Physical Education*. New York: Appleton Century Corfts .pp.129-141.
- Sing, Ajmeer., and Bainss, Jagdish. 2004. *Essentials of Physical Education*. New Delhi: Kalyanipublishers .pp. 275-285.
