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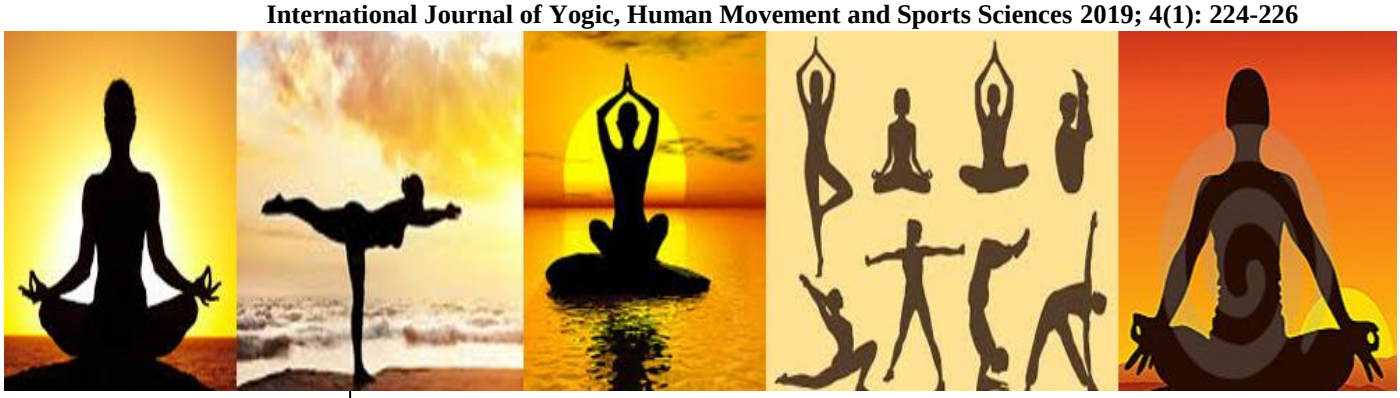

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A study on physiological haematological and physical variables in relation to aerobic capacities among college going students

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Abstract
The purpose of the study was to compare the high aerobic and low aerobic ability of College going students. Physiological, Haematological and physical variables selected of college student. For this purpose 250 students were selected in each discipline with age ranging 19-23 years. For finding variable difference Using to find out Mean, standard deviation and 't' ratio. There was a significance difference between high aerobic group and low aerobic group. It was concluded that there was a significance difference between high aerobic group and low aerobic group. The high aerobic group student have better haemoglobin count, RBC cont and low cardiac rate, respiratory rate, blood pressure, body fat body weight and vital capacity compare to low aerobic group student. The students must be given high aerobic training to enable them to improve the performance in life style.

Keywords: Physiological, haematological, physical, variables, aerobic, standard deviation, mean 't' ratio

Introduction
Physical education aims for the all-round development of the children and to achieve this aims, this physical educators scientifically planned physical activities. In modern world promotion of physical education and sports in no longer a matter of dispute. Today physical education and sports are consider as integration discipline because the build-up international understanding and universal brotherhood. Hence the promotion of physical education and sports is accepted as moral and social responsibility of each nation.

Long ago Plato observed the body need to be vigorous in order to obey the soul: a good servant ought to be robust. The weaker the body the more it commands, the stronger it is the better to obeys in order to think we must exercise our limbs, our sense and our intelligence that they body which furnishes them should be robust and sound. Physical education develops the skills, knowledge, values and attitude needed for establishing and enjoying an active and healthy lifestyle, as well as building student confidence and competence in facing challenges as individuals and in groups or teams, through a wide range of learning activities.

1. Physical education offered as an elective examination subject and senior secondary education level. It emphasises the connection between theory and practical skills and designed to develop the interest and potential of students in the areas of Physical education and sports. It will help students gain a deeper understanding of theories and applications in the fields of human movement and health, and it will promote the wellbeing of individuals and society.
2. It is generally accepted that encouraging a healthy lifestyle characterized by regular physical activity in children is a worldwide priority for future health to overcome the challenges posed by sedentary lifestyles. Like many other major cities in the world. Hong Kong problems of obesity and lack of physical fitness. By providing students with the knowledge to make an informed choice of lifestyle. Through a combination of theory and practical work, the physical education curriculum will foster healthy living and contribute to promote development of well-being.

The aims of Physical Education are to enable the students:

- Appreciate and understand the value of physical education and its relationship to a healthy, active lifestyle.
- Work to their optimal level of physical fitness
- Become aware of movement as a creative medium connected to communication, expression and aesthetic appreciation.
- Develop the motor skills necessary to participate successfully in a variety of physical activities.
- Experiences enjoyment and satisfaction through physical activity
- Develop social skills that demonstrate the importance of teamwork and co-operation in group activities. Conducted according to social hygienic standards.

Objectives of Physical Education

1. The development of organic system through physical activities.
2. The development of neuromuscular system particularly in its relation to control fundamental skill.
3. The development of desirable social attitudes and control
4. The development of desirable attitudes towards fitness and towards physical conduct

Review of Related Literature

The series of Research work done related to the present investigation has been presented in this chapter. The scanning of review of related literature may serve as an important thing to the researcher for better understanding of the problem and to interpret the result.

According to John. W. Best (2009) the search for reference material is a time consuming but fruitful phase of the research program. A familiarity with the literature in any problem area helps the investigator to discover what is already known, what others have attempted to find out, what methods have been promising or disappoint and what problems remains to be solved. The researcher made sincere efforts to locate literature relevant to this study. Some of the studies cited in this chapter do not have direct relevance to present study but or of indirect importance in understanding significance and need of present investigation.

Bowes (2003) studied the effect of specific exercise on skin fold measurements. The skin fold sites selected were posterior surface of upper arm, iliac crust on the mid-axillaries line and middle side of the thigh, opposite superior ridge of the patella. The experimental subjects were enrolled in a physical education class. Women who met for three hours period per week for 10 weeks. 30 min/period were devoted to exercise which consisted of body mechanics exercises for the first 5 weeks and modern dance techniques, composition and lectures for the second 5 weeks. For the experimental groups significant loss of arm skin fold occurred mostly during the second 5 weeks.

Analysis of data result and Discussion

The statistical theory test of data, consequence of the exploration decision and conversation on finding are presented in the particular chapter the present study was to undertaken to explore on physiological profiles of male student with different aerobic capacities. The statistical analysis of the data collected was carried out for high and low aerobic of two hundred students for each group consistency of high and low aerobic capacities.

Table 1: The statistical analysis of the data collected was carried out for high and low aerobic of two hundred students for each group consistency of high and low aerobic capacities.

s.no	Groups	Mean	Mean difference	Standard deviation	t ratio
Respiratory rate	Lowaerobic	67.072	2.204	6.979	3.977*
	Highaerobic	69.276		1.903	
Systolic blood pressure	Lowaerobic	119.328	2.728	3.213	3.692*
	Highaerobic	116.6		3.934	
Diastolic blood pressure	Lowaerobic	68.324	3.464	5.96	3.012*
	Highaerobic	71.788		6.072	
Cardiac rate	Lowaerobic	69.276	2.204	6.979	4.121*
	Highaerobic	67.072		5.935	
Haemoglobin count	Lowaerobic	13.383	0.973	0.466	2.615*
	Highaerobic	14.536		0.736	
RBC count	Lowaerobic	4.88	0.445	0.314	3.294*
	Highaerobic	5.325		0.213	
WBC count	Lowaerobic	8.144	2.36	1.738	3.640*
	Highaerobic	5.784		1.365	
Body fat	Lowaerobic	19.957	3.918	4.558	3.030*
	Highaerobic	16.039		4.223	

Significance at 0.01 level of confidence.

Significance at 0.01 level of confidence

- The resting cardiac rate in high aerobic group is lower as compared to low aerobic group.
- The resting respiratory rate is lower in high aerobic group as compared to low aerobic group.
- The systolic blood pressure is lower in high aerobic group as compared to the low aerobic group.
- The diastolic blood pressure is lower in high aerobic group as compared to the low aerobic group.
- The haemoglobin content is high in high aerobic group as compared to low aerobic group.
- The total RBC count is high in high aerobic group compared to lower aerobic group.
- Total WBC count is lower in high Arabic group compared to low Arabic group.
- The total body weight is lower in high aerobic group compared to low aerobic group.
- The lean body mass of high aerobic group is lower as compared to low aerobic group.
- The percentage of body fat is lower in high aerobic group compared to low Arabic group.
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Discussion on Hypothesis

In the hypothesis of the study the investigator has stated that there would be a significant that difference on selected physiological haematological and physical variables between high and low aerobic groups. The result of the study shows that resting cardiac rate, resting respiratory rate, resting systolic blood pressure, resting diastolic blood pressure, in haematological variables haemoglobin content and total WBC count and total RBC count are positively influenced among high aerobic groups students to compare to low aerobic students. Hence the pollster hypothesis is held true. This apart the total WBC percentage of body fat, lean body mass and total body weight are positively influenced among low aerobic students as compared to high aerobic students. Hence the investigator hypothesis is also held true.

Summary, Conclusion and recommendations

Physical education is an process that has its the improvement of human beings performance to gain the development and adjustment of inherent in the activities according to social adjustment medium of physical activities selected to realize this out comes. Charles A Bucher.

The first and foremost need of the physical education and sports Authority of India is to improve the standard of sports persons of our country for which physical physiological standard of each such person should be known. This wills in a way will help to train them and arise the standard to the required inter National levels.

Conclusion

Within the limitation indicated on the basis of result on the present study the following conclusion wore follow

S. NO.	Components	High aerobic group
1	RCR	HA<LA
2	RRR	HA<LA
3	SBP	HA<LA
4	DBP	HA<LA
5	HC	HA>LA
6	RBC	HA>LA
7	WBC	HA<LA
8	BF	HA>LA
9	LBM	HA>LA
10	TBW	HA>LA

Recommendations

Based on the major findings of the present study the following recommendations were made.

- The research was conducted among the first grade college of male students a similar study may be conducted among female students.
- It is recommended to include the different age groups such as less than 19 years of the students. In further study as the literature survey indicates that the transfer of learning affects best possible life style.

References

1. Basumatary SJ, Lohani, Ramesh Chandra. Comparison of Selected Motor Abilities between Basketball and Handball Players of Delhi. International Journal of Movement Education and Sports Sciences (IJMESS), Annual Refereed & Peer Reviewed Journal. 2013; 1(1):1-5.
2. Clarke HH, Bonesteel HA. Equalizing the Ability of Intramural Teams at a Small High School, Research Quarterly Supplement. 1935; 6:193-196.
3. Datt, Vishnu, Mane, Manohar. A Comparative Study of Speed, Strength and Agility of Inter Collegiate Basketball and Volleyball Players. Variorum Multi-Disciplinary e-Research Journal. 2013; 04(2):1-5.
4. Davis B. Physical Education and Study of Sports, Harcourt Publishers, Spain, 2000, 121-22.
5. Garrett, Henry E, Woodworth RS. Statistics in Psychology and Evaluation, Vakils Faffer and Simonx Pvt. Ltd., Ballard Estate, Bombay, 2000.
6. Javeed, Quadri Syed, Rathod LB, Laxmikanth. A Comparative of Physical Fitness among Athletes and Non-Athletes Asian Journal of Physical Education and Computer Science in Sports. 2011; 5(1):36-37.
7. Koul, Lokesh. Methodology of Educational Research, Third revised Edition, Vikas Publishing Housing Pvt. Ltd, 2000.
8. Sandeep Comparative Study of Physical Fitness of Volleyball and Basketball Players at State Level. International Indexed & Referred Research Journal. 2012; 4(45):22.