RECENT TRENDS IN

YOGA AND PHYSICAL EDUCATION

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89 COMPARISON OF SELECTED PULMONARY VARIABLES AMONG THE ALTITUDE, COASTAL AND PLAIN AREA SCHOOL BOYS OF SRI LANKA

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Introduction

Physical education is a body oriented discipline. It is based on scientific facts and principles. It helps the youth to grow into a healthy citizen and develop the ability to enjoy a happy, vigorous, balanced and peaceful life. However, certain other factors such as hereditary, nutritious, climatic, physiological, social and geographical condition may influence the fitness and very particular to pulmonary variables. The settlement of the people in the world can be classified as altitude, plain and coastal. The day-today life activities of the people of the altitude area are different from the work of the people of the plain and coastal areas. The level of physical fitness of the coastal area may not be compared with other areas. This is because; in coastal area the people have different types of daily routines.

Methods

To achieve the aim, Purpose sampling method was used to selected subject Nine hundred(N = 100) school boys were selected from 9 schools at random from the specified areas(altitude, plain, coastal) in Srilanka, The age of the subject ranged from 14-16 years. Group-I altitude area (N = 300), Group – II Coastal area (N = 300) and Group – III plain area (N = 300) boys. They were measured selected pulmonary variable such as vital capacity (equipments – Wet Spiro meter) and breath holding time (equipments –Stop watch). The Data was analysed by ANOVA and scheffe's test was used as follow-up significant level P<0.05 were used to analyse the data.

Results of the study

Table -I

ANOVA of pulmonary variables among the attitude, plain and coastal area school boys of SriLanka

Variables		Attitude	Plain	Coastal	SOV	SS	df	MS	F
Vital Capacity	Mean	2046.66	1936.83	1847.83	Between	5954038.88	2	27777019.44	133.27*
	S.D	178.21	136.47	128.94	Within	20036717	897	22337.48	
Breath holding time	Mean	33.08	31.31	29.59	Between	1818.43	2	909.21	91.47*
	S.D	3.78	3.31	2.37	Within	8915.97	897	9.94	

* Significant at 0.05 level, df 2 & 897 (table value 3)

Table –II

Scheffe's Test for significant difference among means of difference areas of pulmonary variables

Variables	Attitude	Plain	Coastal	MD	CI
Vital Capacity	2046.66	1936.33	-	110.33*	28.25
	2046.66	-	1847.83	198.83*	28.25
	-	1936.33	1847.83	88.50*	28.25
Breath holding time	33.08	31.31	-	1.77*	0.60
	33.08	-	29.59	3.49*	0.60
	-	31.31	29.59	1.72*	0.60

Discussion

The purpose of present study was to find out the difference of pulmonary variables among altitude, coastal and plain area school boys. The data obtained were statistical analyzed to find out the significant difference between the groups the above mentioned variables (vital capacity and breathing holding time). The findings show that there was significant difference between altitude coastal and plain area school boys in vital capacity, while comparing groups on vital capacity and breathing holding time. Altitude boys were shows better vital capacity and breathing holding time followed by plain area boys than coastal boys.

Conclusion

From the study the following conclusions were made.

1. The results of the study indicated that there was significant difference in vital capacity and breathing holding time between altitude, coastal and plain area school boys.
2. The result further indicates that altitude boys were shows better vital capacity and breathing holding time followed by plain area boys.

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