



ORIGINAL RESEARCH PAPER

Physical Education

COMPARISON OF PHYSICAL FITNESS AMONG GIRLS WITH DIFFERENT CATEGORIES OF JANGALMAHAL

KEY WORDS: Physical Fitness, Muscular Strength, Muscular Endurance, Speed, Flexibility, agility etc

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ABSTRACT

Regular physical activity is proven to help prevent and manage non-communicable diseases such as heart disease, stroke, diabetes and several cancers. It also helps prevent hypertension, maintain healthy body weight and can improve mental health, quality of life and well-being. Physical inactivity is one of the leading risk factors for non-communicable diseases mortality. People who are insufficiently active have a 20% to 30% increased risk of death compared to people who are sufficiently active. In the present study the researcher tried to see whether there is a difference of physical fitness among girls with different categories students of Jangalmahal. Sixty girl's students of Seva Bharati Mahavidyalaya of three different streams (20 from each stream) were taken as subject of the study. Selection of subjects was done on the basic of random group design. The age ranged of the subjects was from 17 to 25 yrs. fitness items were tested including Muscular strength, speed, flexibility, Muscular Endurance and Agility. The data was analyzed by applying ANOVA statistics at the 0.05 level of significance. The obtained data revealed that the girls of three streams (B.P.Ed Students, B.A Physical Education students and General students) differed significantly in respect of Muscular Strength and speed but in relation to flexibility and muscular endurance and agility insignificance differences were found among the girls of three different stream students.

INTRODUCTION:

Physical fitness is much more than exercising, as it includes starting from out of bed to ending a particular activity at the end of the day. It refers to the ability of body systems to work together efficiently to perform day-to-day activities easily.

Physical fitness is "the ability to carry out daily tasks with vigor and alertness, without undue fatigue, and with ample energy to enjoy leisure-time pursuits and respond to emergencies", according to the Centers for Disease Control and Prevention (CDC).

It consists of cardiovascular functioning, which gets enhanced by performing aerobic activities that get one's heart and lungs operating faster. It comprises muscle strength, flexibility and balance. One does not need to get fancy, expensive equipment to adapt to fitness. For example, Walking is an activity that is available to almost everyone.

Exercise is designed towards maintaining physical fitness. It means a sub-category of physical activity. Physical activity is any form of exercise or movement of the body that consumes energy. Examples: One can do various house and garden chores that can help build strength, including daily life activities.

A fit person can respond to normal life situations like raking leaves at home, stocking shelves at a part-time job and participating in the band at school. However, they can also respond to emergencies. The only way to achieve a healthy and fit lifestyle is to make necessary changes to your everyday life.

Purpose Of The Study:

The purpose of the study was to Comparison of physical fitness among girls with different categories of Jangalmahal.

METHODOLOGY:

Selection Of Subjects:

For the purpose of the study sixty girl's students of different streams were selected from Seva Bharati Mahavidyalaya, Kapgari, Jhargram. Group A 20 girls students were selected randomly from B.P.Ed course, Group B 20 students of general physical education girls students course and Group C 20 girls students from general degree course (B.A/ B.Sc/ B.Com). Their age range from 19-25 years. The researcher selected some specific test for the purpose to compare the flexibility, muscular endurance, muscular strength, agility and speed

among girls with different age categories. Selected fitness test were taken on morning sessions and all the test were conducted in a single day. Flexibility was measured by the application of sit and reach test, muscular endurance by administering sit up test, muscular strength by using handgrip strength Test, Agility by administering shuttle run and lastly speed by the application of 50 yard dash. The significance of statistical difference among the group was measured by applying ANOVA statistics at 0.05 level of significance.

ANALYSIS OF DATA AND RESULTS OF THE STUDY:

The statistical analysis of data in physical fitness ability among girls of different streams, namely group A (B.P.Ed Course students), Group B (general physical education students) and group C (general degree course students) respectively were computed by applying of variance statistics to find out the existence of significant difference.

Table-1

Variable	Mean			Source of Variance	SS	df	mss	F ratio
	B.P.Ed Students	Gen. Phy. Edu. Students	General B.A/ B.Sc/ B.Com. Students					
Muscular Strength	19.4	15.71	13.75	Amon	472.01	2	234	18.52*
				Withn	779.05	57	14.41	
Speed	9.57	9.94	10.24	Amon	4.58	2	2.54	3.65*
				Withn	34.45	57	0.61	
Muscular Endurance	18.6	17.4	17.4	Amon	1.01	2	0.52	0.0061
				Withn	4658	57	81.26	
Flexibility	7	9.54	8.24	Amon	108	2	54.01	2.65
				Withn	1174	57	21.23	

Agility	12.01	13.24	13.58	Amon g	9.69	2	1568.1	0.0045
				With n	88214.3	57	0.68	

*Significance at 0.05 level of confidence.
 $F_{05}(2,57) = 3.15$

The table-1 of analysis of covariance for muscular strength of Group A, B and C indicated significant F-ratio of 18.52 and 3.65 which was significant as it was greater than the F-value of 3.15 required for significant at 0.05 level. This indicates that there was significant difference in muscular strength and speed variables respectively. To know which stream girl's strength is better on muscular strength and speed variable, pair wise comparison analysis was done.

Pair-wise comparison of mean scores of muscular strength among girls of three streams

Table-2

MEAN			MEAN DIFFERE NCE	CRITICAL DIFFERE NCE
Group A	Group B	Group C		
19.4	15.71		3.69*	3.049
19.4		13.75	5.65*	3.049
	15.71	13.75	1.96	3.049

*Significance at 0.05 level of confidence

Table-2 indicates that there is significant difference between the mean performance of group A and group B and group B and C.

Pair-wise comparison of mean scores of muscular strength among girls of three streams

Table-3

MEAN			MEAN DIFFERE NCE	CRITICAL DIFFERE NCE
Group A	Group B	Group C		
9.57	9.94		0.37	0.61
9.57		10.24	0.67*	0.61
	9.94	10.24	0.30	0.61

*Significance at 0.05 level of confidence

Table-3 indicates that there is significant difference between the mean performance of group B and C where as insignificant difference in group A and group B and insignificant difference in group B and group C.

CONCLUSION:

On the basis of result obtained it was concluded that:

1. Significant difference was found among girls of three streams in Muscular Strength and speed.
2. Insignificant difference was found among girls of three streams in flexibility, Muscular endurance and Agility.

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