



## Relationship of health related physical fitness with the achievement motivation of academic college students

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### Abstract

The main purpose of the study was to determine the relationship in between the health related physical fitness and achievement motivation of the students belong to academic college. It was hypothesized that significant relationship would be in between Health Related Physical Fitness components and Achievement Motivation of academic college students. The present study was delimited to 250 subjects found who were selected from academic colleges of Sidho-Kanho-Birsha University, Purulia, West Bengal. The age of the subjects ranged between 18-25 years. The criterion measures of selected variables were muscular strength- (pull-ups in numbers), muscular endurance (bent-knee sit ups in numbers), cardio-respiratory endurance (600 yard run/walk in seconds), flexibility (sit and reach test in centimeter), weight (weighing machine in kilogram), body composition- (biceps, triceps, sub-scapular and supra iliac skinfold caliper in millimeters) and achievement motivation (V.P. Bhargava's Achievement Motive Test (ACMT)). To describe the nature of data descriptive statistics was computed. To establish the relationship in between dependent (Health Related Physical Fitness) and independent variables (Achievement Motivation) Pearson's Product Moment Coefficient of Correlation statistical technique was employed separately for each selected variables. To test the hypothesis, the level of significance was kept at 0.05. Achievement motivation showed significantly positive relationship with Muscular Strength ( $r = 0.246$ ), Muscular Endurance ( $r = 0.225$ ), Flexibility ( $r = 0.311$ ), Lean Body Weight ( $r = 0.214$ ) and Composite Score of Health Related Physical Fitness ( $r = 0.419$ ). Whereas insignificant relationships were found in between Cardio-vascular Endurance ( $r = 0.046$ ), Fat Weight ( $r = 0.110$ ) with achievement motivation Health Related Physical Fitness components show any significant relationship with achievement motivation.

**Keywords:** health related physical fitness, muscular strength, muscular endurance, cardio-vascular endurance, flexibility, body composition (lean body weight & fat weight) and achievement motivation

### Introduction

Motivation is basic to educational procedures and teaching methods. The motivation of learning is not just a question of turning some short-term stimulus into action like zealous advice or exhortation, menacing frown, threats of severe action or dire punishment or promise of reward or prizes, though these too have their own place and value in an educational programme. Motivation is not a simple problem but a cluster of varied and complex problems. It involves a number of things like deep understanding of developmental processes and learning, of temperament, intelligence, personality patterns, interpersonal action and socialization, in fact of the entire educational situation and process. Aimed with this knowledge the teacher will have to select appropriate objectives and goals for a particular group, keeping in view its special circumstances, and to devise programmers of work in which pupils move step-by-step toward the achievement of those objectives and goals. A wrong choice of objective and goals, and/or a faulty programme of work will spell disaster for motivation and learning. It is well known facts that 'Body is the servant of mind' as well as 'Sound mind possesses in sound body'. Therefore, the present study was undertaken and stated as "Relationship of Health Related Physical Fitness with the Achievement Motivation of Academic College Students."

### Purpose of the study

The main purpose of the study was to determine the relationship in between the Health Related Physical Fitness Components and Achievement Motivation of the academic college students. The other purpose of the study was to know the status of Health Related Physical Fitness of male students of academic college.

### Hypothesis

On the basis of literatures reviewed it was hypothesized that Significant relationship would be found in between Health Related Physical Fitness components and Achievement Motivation of academic college students.

### Delimitations

The present study was delimited to the subjects were selected from academic colleges of Sidho-Kanho-Birsha University, Purulia, West Bengal. Fifty students were selected from each college and total five colleges were selected, hence total 250 students were the subjects for this study. The age of the subjects ranged between 18-25 years. The study was further delimited to the Health Related Physical Fitness as Muscular Strength, Muscular Endurance, Cardio-Respiratory Endurance, Flexibility, Body Composition and Achievement Motivation.

**Methodology**

The criterion measures of selected variables were Muscular strength- was measured by using Pull-Ups test and score was recorded in numbers. Muscular Endurance- was assessed by using Bent-Knee Sit Ups and score was recorded in numbers. Cardio-Respiratory Endurance- was measured by employing 600 yard run/walk and score was recorded in seconds. Flexibility- was measured by applying Sit and Reach test and the score was noted down in centimeters. Weight- Total body weight of the subject was measured by using weighing machine and it was recorded in kilogram. Body Composition- Body fat was measured by using four sides skin fold thickness (biceps, triceps, sub-scapular and supra iliac) methods with the help of skin fold caliper. Measurements were taken in millimeters using the developed ready Reckoner. Fat weight was recorded in kilogram. Achievement Motivation- was assessed by administering V.P. Bhargava’s Achievement Motive Test (ACMT) questionnaire and the score was

recorded in numbers. Before administrating the questionnaire, the rules and procedure for filling up the questionnaire were clearly explained before the selected subjects so as to the most reliable information’s could be collected from the selected subjects for the purpose of the study. By using the developed key scores was recorded in numbers.

**Analysis and interpretation of data**

The collected raw data were systematically arranged in the tables for further statistical treatment. To describe the nature of data descriptive statistics was computed. To establish the relationship in between dependent (Health Related Physical Fitness Components) and independent variables (Achievement Motivation) Pearson’s Product Moment Co-efficient of Correlation statistical technique was employed separately for each selected variables. To test the hypothesis, the level of significance was kept at 0.05. Findings of the statistical analysis have been shown in the following tables.

**Table 1:** Description of Health Related Physical Fitness Components and Achievement Motivation of Academic College Students

Health Related Physical Fitness and its Components	Mean	Standard Deviation	Minimum Score	Maximum Score
Muscular Strength (Pull-ups)	8.720	2.243	5.000	13.000
Muscular Endurance (Sit-ups)	34.496	5.062	29.000	46.000
Cardio-vascular Endurance (600 Yard Run/Walk)	141.461	9.436	130.000	179.000
Flexibility (Sit & Reach Test)	12.756	2.427	6.000	25.000
Fat Weight	6.206	2.306	3.344	16.296
Lean Body Weight	49.834	4.882	37.310	67.704
Composite Score of Health Related Physical Fitness	250.001	26.893	177.538	311.751
Achievement Motivation	19.512	3.930	11.00	31.00

N = 250

**Table 2:** Relationship of health related physical fitness components with achievement motivation of academic college students

Variables Correlated	Co-efficient of correlation (r)
Muscular Strength and Achievement Motivation	0.246*
Muscular Endurance and Achievement Motivation	0.225*
Cardio-vascular Endurance and Achievement Motivation	0.046@
Flexibility and Achievement Motivation	0.311*
Fat Weight and Achievement Motivation	0.110@
Lean Body Weight and Achievement Motivation	0.214*
Health Related Physical Fitness and Achievement Motivation	0.419*

\* Significant at 0.05 level, Tabulated  $r_{0.05 (248)} = 0.123$ , @ Not significant at 0.05 level, N = 250

Table-2 shows that Muscular Strength ( $r = 0.246$ ), Muscular Endurance ( $r = 0.225$ ), Flexibility ( $r = 0.311$ ), Lean Body Weight ( $r = 0.214$ ) and Composite Score of Health Related Physical Fitness ( $r = 0.419$ ) are significantly correlated to Achievement Motivation because all the calculated r-values are greater than the tabulated r-value of 0.123, needed to be significant at 0.05 level with 248 degrees of freedom.

The findings of Table-2 also indicate that the fitness components of Cardio-vascular Endurance ( $r = 0.046$ ), Fat Weight ( $r = 0.110$ ) do not correlate significantly to Achievement Motivation as the calculated r-values are less than that of tabulated r-value of 0.123 needed to be significant at 0.05 level with 248 degrees of freedom.

**Findings**

Findings of above table revealed that health related physical fitness and its components except cardio-vascular endurance and fat weight showed significant relationship with achievement motivation of the academic college students, it may be attributed to the fact that until unless an individual become physically fit it will be difficult for him to enhance determination ability or volitive ability, therefore such significant correlation might have occurred in this study.

**Testing of Hypothesis**

Hypothesis is accepted for the variables of muscular strength, muscular endurance, flexibility, lean body weight and composite score of health related physical fitness. For the variables of cardio-vascular endurance and fat weight hypothesis is rejected.

**Conclusion**

Recognizing the limitations of the study and on the basis of statistical findings the conclusions is significantly positive relationship with Muscular Strength ( $r = 0.246$ ), Muscular Endurance ( $r = 0.225$ ), Flexibility ( $r = 0.311$ ), Lean Body Weight ( $r = 0.214$ ) and Composite Score of Health Related Physical Fitness ( $r = 0.419$ ). Whereas insignificant relationships were found in between Cardio-vascular Endurance ( $r = 0.046$ ), Fat Weight ( $r = 0.110$ ) with achievement motivation Health Related Physical Fitness components show any significant relationship with achievement motivation.

### Recommendations

- Physical education and sports should be made part and parcel of educational curriculum to develop physical fitness through which psychological development may be attained
- The curriculum should be mould in such manner so as to all round development of the students can be possible

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