

# A Study of The Effect of Physical Education Programmes on Health Related Fitness Variables in Female Students

## **KEYWORDS**

Health related fitness and Physical Education

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ABSTRACT Aim: The purpose of this study was to find out the effect of physical education programmes on selected health related fitness Variables in female students of VSSD College, Kanpur. Methods: Thirty female students from BPEd and MPEd were taken as the subject for this study. The age ranging between 18 to 28 years. The health related components such as Flexibility, Muscular strength, Muscular Endurance were selected for this study. And delimited to experimental period of 6 weeks and health related programme had been organized 6 days in a week. The data were collected before and after the 6 weeks of training programme. Statistic: To find out the effect of circuit training programme on selected motor fitness variables of College students 't' test was calculated .'t' Ratio value of pre-test and Post-test were significantly at 0.05 level. Result: There was no significant difference of pre-test and post-test of various fitness variables like 800mts Running, Sit and Reach, and Sit-ups of the Girls of BPED and MPED students of VSSD College. There was only one significant difference found in girls fitness in Flexed Arm-Hang. The hypothesis of this test is partially accepted in the matter of 800mtr run, sit and reach and sit ups and partially rejected in the matter of flexed arm hang. So the value of this test is significant at 0.05 level in such components like flexed arm hang. Conclusion: There was no significant difference of pre-test and post-test of various fitness variables like 800mts Running, Sit and Reach, and Sit-ups of the Girls of BPED and MPEd students of VSSD College, Kanpur. The above result help to conclude that health related exercise for the period of 6 weeks was effective to improve the health related variable of college girls such as flexed arm hang.

### Introduction

In recent years more and more attention has been paid to nature of physical fitness not only in terms of general health but also of the special physical requirement for competitive sports and certain highly specialized and demanding occupations. As a result of current work particularly in the field of ergonomic and physical education it appreciated that the achievement and maintenance of high level of physical fitness produce significant affects on the working of human body.

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Health practices have been with us a long time. They are as old as yesterday, as contemporary as today, as modern as tomorrow. Health practices have ever been the life stream of a nation's progress. Good health practices are the life generating forces for the advancement of civilization. A nation stands firm, if its people follow the desirable health practices in their day to day life. Since the school going children and youth i.e. college students happen to be the future citizens of the nation, they certainly need to be educated the basic hygienic practices for their health and happy life in particular and for a healthy nation in general. On the other hand poor hygienic practices account for a large number of diseases and deficiencies. Health practices in the life of an individual or in community are expressions of a number of factors including habits and attitudes as well as knowledge. In everyday living most people fall below what they know to be the best in hygiene and health practices.

### Objective of the study

"A study of the effect of physical education programme on health related fitness variables"

It is Hypothesized that there will be a effect of physical education programme on physical fitness of students

#### Methodology:

Thirty female students was selected from VSSD College by random method and subject was oriented to the test of health related fitness variables.

- The research scholar selected 30 students for the study in which 15 BPEd and 15 MPEd female students of VSSD college.
- The subjects were selected each test and administered of Running, Sit and reach, pull-ups and sit-ups.
- All the subjects had given proper response in the test. Mean of pre-test and post-test of four fitness variable are calculated. Standard Deviation of pre-test and post- test of fitness variable are also calculated by SPSS 16<sup>Th</sup> version.

#### **Experimental Treatment**

In the physical education training programs of the college considered as experimental factors in which training for two hours at the morning and two hours at the evening is given to the BPEd and MPEd female students of VSSD college. The training includes warming up for half hours followed by practicing formal activities like Lazium, Dumbells, Wands, Yoga, suryanamaskar and calisthenics activities for

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one and half hours. And at the evening after warming up of half and hour practice of different games like Football, Volleyball, Cricket, Kabaddi, Basketball and Athletics take place for one and half hours daily.

### Criterion Measure :

The criterion measures chosen for this study were following variables:

- Endurance Run 800mts Run
- Muscular endurance Flexed knee sit ups in sixty second.
- Muscular strength measure by pull ups.
- Flexibility measure by sit and reach test.

### Scoring of Data

The subjects score on 800mts running, sit & reach, pull-ups and sit-ups test conducted before and after the completion of experimental period constituted the score for the purpose of the study. Paired 't' test was used and for testing the difference between pre-test and post-test the level of confidence was set at 0.05.

#### Results

Test	Mean	Standard Deviation	Mean Difference	't'Ratio	
Pre-test	4.30	0.10			
Post-test	4.41	0.13	0.11	1.71	

### TABLE NO.1

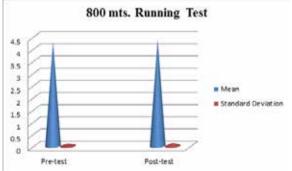
# Comparison of Means of Selected health related fitness components of pre test and post test of 800 mts. Run

\*Significant at 0.05 level.

t.05 (28) =2.05

The mean value of pre-test and post- test of 800mts running is 4.30 and 4.41 respectively. Standard Deviation value of pre-test and post-test is 0.12 and 0.11 respectively. Value of 't' ratio is 1.71, this value of 800mts running is not significant at 0.05 level.

# Graph No.1 Showing Pre-Test and Post-Test Mean of 800mts. Running of Girls



### TABLE NO.2

Comparison of Means of Selected health related fitness components of pre test and post test of Sit and Reach Test

Test	Mean	D 1.11	Mean Differ- ence	'ťRatio
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#### Volume : 5 | Issue : 11 | November 2015 | ISSN - 2249-555X

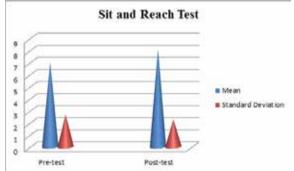
Pre-test	7.04	2.70		
Post-test	8.12	2.30	1.08	1.11

\*Significant at 0.05 level.

t.05 (28) =2.05

The mean value of pre-test and post- test of Sit and Reach is 7.04 and 8.12 respectively. Standard Deviation value of pre-test and post-test is 2.70 and 2.30 respectively. Value of 't' ratio is 1.11, this value is not significant at 0.05 level.

# Graph No.2 Shows the Pre-Test and Post-Test Mean of Sit and Reach of Girls



### Table No.3

Comparison of Means of Selected health related fitness components of pre test and post test of Sit-ups

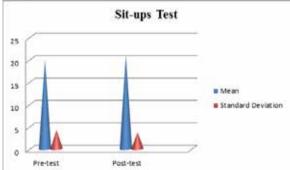
Test	Mean	Standard Deviation	Mean Differ- ence	't'Ratio
Pre-test	20.02	4.23		
Post-test	21.08	3.72	1.06	0.82

\*Significant at 0.05 level.

t.05 (28) =2.05

The mean value of pre-test and post- test of sit-ups is 20.02 and 21.08 respectively. Standard Deviation value of pre-test and post-test is 4.23 and 3.72 respectively. Value of 't' ratio is 0.82, this value of sit-ups is not significant at 0.05 level.

### Graph No.3 Shows the Pre-Test and Post-Test Mean of sit-Ups of Girls



### Table No.4

Comparison of Means of Selected health related fitness components of pre test and post test of Flexed Arm Hang

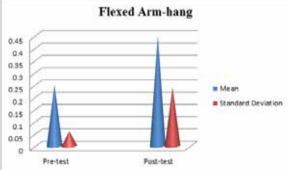
Test	Mean	Standard Deviation	Mean Differ- ence	't'Ratio
Pre-test	0.25	0.06		
Post-test	0.45	0.24	0.20	3.24*

\*Significant at 0.05 level.

t.05 (28) =2.05

The mean value of pre-test and post- test of Flexed Armhang is 0.25 and 0.45 respectively. Standard Deviation value of pre-test and post-test is 0.06 and 0.24 respectively. Value of 't' ratio is 3.24, this value of Flexed arm-hang is significant at 0.05 level.

### Graphno.4 Shows the Pre-Test and Post-Test Mean of Flexed Arm-Hang of Girls



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### **Discussion of findings**

From the analysis of above data it is evident that the mean of post-test was not improved in the case of 800mtr run, sit ups and sit and reach, and improved in the case of flexed arm hang. It is proved that the physical fitness of the students was also determined by other factors like heredity, sex, diet and age. It is also found that the six weeks of physical education training programs is somehow not sufficient to produce its effect upon all the variable of the physical fitness of the VSSD College students except flexed arm hang, it may require longer period of training to improve the other physical fitness variable.

### **Discussion of Hypothesis**

From the analysis of above data, it was evident that the mean value of post-test of girls is increased only in one variable, but this slight improvement in the mean value of post-test is not statistically significant so the test is not significant. In other variables such as 800mtr run, sit and reach and sit ups It founds insignificant so the hypothesis is partially accepted and partially rejected. Might be the difference that appear may be attribute to sampling error or chance or by any other factor which was not in control of the researcher.