

Impact of Fitness Training Programme on selected Health related Physical Fitness Components on undergraduate females of Daulat Ram College

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Abstract

Aim: The purpose of the study was to see the Impact of Fitness training Programme on selected health related Physical Fitness Components on undergraduate females of Daulat Ram College. **Research Hypothesis:** It was hypothesized that there was a significant difference between pre and post data on selected health related Physical Fitness Components on undergraduate females of Daulat Ram College. **Methodology:** The study was delimited to the under graduate females of Daulat Ram College. The data was collected on 50 females before and after undergoing fitness training programme for 15 days. **Statistical Analysis:** The data pertaining to health related Physical Fitness components namely muscular endurance and flexibility was subjected to statistical analysis. Descriptive statistics were computed for the data collected and independent t-test was used to assess the significant difference between pre and post data on selected health related physical fitness components on undergraduate females of Daulat Ram College. The level of significance set was .05. **Results and Findings:** The result of the study revealed that there was a significant difference found in terms of muscular endurance and the difference was not significant with respect to flexibility after undergoing Fitness training programme on undergraduate females of Daulat Ram College.

KEYWORDS – Muscular Endurance, Flexibility, Descriptive statistics, and Independent t-test.

INTRODUCTION

Health is the basic necessity of everyone. However, in this automatized world physical activities have taken a backseat. This study aims to bring the necessity of engaging in physical activities on a daily basis so as to live healthy and holistically. This study was done to assess the impact of Fitness Training Programme on selected health related physical fitness components namely muscular endurance and flexibility on undergraduate females of Daulat Ram College. The basic movement like running, throwing, climbing, jumping lifting etc. requires specific physical attributes such as muscular strength, muscular endurance, cardiovascular endurance, strength, balance and coordination (W.H.O, 1981). The expertise committee of the world Organization (1981) describes physical fitness as the ability to undertake muscular work satisfactorily and in capacity to carry out various forms of physical activities without being unduly tired including qualities important to the individual health and well-being. According to Clarke, Harrison, H (1971) physical fitness is defined as ability to carry out daily tasks with vigor and alertness without undid fatigue with ample energy leisure time pursuits to meet usual situation and unforeseen emergencies.

Appropriate regular daily physical activity is a major component in preventing chronic disease, along with a healthy diet and not smoking. For individuals, it is a powerful means of preventing chronic diseases; for nations, it can provide a cost effective way of improving public health across the population. Available experience and scientific evidence show that regular physical activity provides people, both male and female, of any conditions including disabilities with a wide range of physical, social and mental health benefits. (WHO 2003).

Flexibility is the range of movement of the joints, there is no ideal standard for flexibility. There is little scientific evidence to show that a person who can reach 2 inches past his or her toes on a sit-and-reach test is less fit than the person who is able to reach 6 inches past his or her toe. Too much flexibility as well as too little flexibility could be detrimental (Corbin et al., 2003). To develop flexibility, it is recommended that muscles are stretched past normal length until resistance is felt. For duration, the stretch should be held from 5 to 10 seconds initially, building to 30 to 45 seconds (Wuest et al., 1994). Several sit-and-reach tests (SRs) are commonly used in health-related and physical fitness test batteries to evaluate the hamstring and lower back flexibility (Jackson, A.W. & Langford, N.J., 1989; Hoeger et al, 1990; Hui and Yuen, 2000). Such field measures are only moderate indicators of hamstring extensibility. However, the SRs are frequently used to evaluate the hamstring muscle extensibility because the procedures are simple, easy to administer, require minimal skills training and are particularly useful in large scale extensibility evaluation in the field setting (Hui and Yuen, 2000).

Muscular Endurance is the ability of the muscles for longer duration without fatigue. It can be measured with the help of 1 minute sit-ups test to determine the endurance of abdominal muscles.

RESEARCH OBJECTIVE

The objective of the present study was: To see Impact of Fitness training Programme on selected health related Physical Fitness Components on undergraduate females of Daulat Ram College.

RESEARCH HYPOTHESIS

There would be a significant difference between the level of muscular endurance before and after the training in Fitness Training Programme on undergraduate females of Daulat Ram College.

There would be a significant difference between the flexibility score before and after the training in Fitness Training Programme on undergraduate females of Daulat Ram College.

METHODOLOGY

Selection of Subjects

For the purpose of the present 50 undergraduate female students of Daulat Ram College were selected as the subject for the research. The age of the subjects were ranging from 18-25 years. The subjects underwent fitness training programme for 15 days held at

Daulat Ram College. Data was collected for two variables namely Flexibility and muscular Endurance before and after completion of Fitness Training Programme of 15 days.

Criterion measures

The criterion measure chosen to test the hypothesis was to scores obtain in sit-ups test for 1 minutes Duration (Muscular Endurance) and Sit & Reach Test (Flexibility).

Statistical analysis

Descriptive statistics were computed for the scores obtained both before and after the Fitness Training Programme on two variables namely Flexibility and Muscular Endurance and pre and post data was compared with the help of t-test.

FINDINGS

The data was analyzed by using “t” test. The significance of mean difference was found between scores obtain in sit-ups test by under graduate females of Daulat Ram College has been presented in table-1.

Comparison of Muscular Endurance level of under graduate females of Daulat Ram College before and after engaging in fitness training programme. Table-1

Muscular Endurance test scores	N	Mean	S.D.	SED	‘t’-value	Level of Significance
Before Fitness Training Programme	50	17.78	2.75	.478	8.6247*	0.05
After Fitness Training Programme	50	21.90	1.96			

*Significant at .05 level of significance

As shown in Table above, the mean muscular endurance score of undergraduate females of Daulat Ram College before and after engaging in 15 days fitness Training programme was 17.78 and 21.90 respectively, whereas SD was 2.75 and 1.96 respectively, whereas the calculated value of ‘t’ was 8.6247, which is higher than p-value. It means that the hypothesis was accepted at the 0.05 level of significant. The result shown that there is very high significant difference was found in the level of muscular endurance before and after engaging in Fitness Training Programme on undergraduate females of Daulat Ram College.

Pre and post flexibility scores of undergraduate females of daulat ram college after fitness training programme. TABLE-2

Flexibility test Scores	N	Mean	S.D.	SED	'T'-value	Level of Significance
Before Fitness training	50	23.77	2.94	.357	4.2227*	0.05
After Fitness training	50	25.28	2.05			

**Not Significant at .05 level of significance

As shown in Table-2 above, the mean Flexibility score of Undergraduate females of Daulat Ram College before Fitness training and after Fitness training were 23.77 and 25.28 respectively, whereas SD was 2.94 and 2.05 respectively. The calculated value of 't' was 4.2227, which is not higher than p-value. It means that the hypothesis was rejected at the 0.05 level of significance. There is no significance difference was found in between the flexibility score of undergraduate females of Daulat Ram College of pre and post fitness training programme. However, the level of Flexibility has improved after engaging in fitness training Programme.

DISCUSSION OF FINDINGS

The result of the study clearly indicates that there was a significant difference found in terms of muscular endurance among undergraduate females of Daulat Ram College after engaging in fitness training programme.. The mean value after engaging in fitness training programme was quite higher with respect to muscular Endurance among undergraduate females of Daulat Ram College. Hence the results indicate that there is a positive and direct impact of fitness training on muscular endurance of undergraduate females of Daulat Ram College.

The result of the study also indicates that there was no significant difference found in terms of flexibility among undergraduate females of Daulat Ram College after engaging in fitness training programme. However, the level of Flexibility has improved after engaging in fitness training Programme but the difference is not significant at 0.05 level of significance. This may be mainly due to flexibility as a component has some genetic connections or longer duration training is required to improve significantly on this component.

DISCUSSION OF HYPOTHESIS

The hypothesis that there will be a significant difference on the level of muscular endurance before and after the training in Fitness Training Programme on undergraduate females of Daulat Ram College is accepted.

The hypothesis that there would be a significant difference between the flexibility score before and after the training in Fitness Training Programme on undergraduate females of Daulat Ram College is rejected.

CONCLUSIONS

Within the limitations of the present study following conclusions may be drawn:

- In regard to muscular endurance there was a significant difference between the means of Pre & Post levels of muscular endurance among undergraduate females of Daulat Ram College.
- In regard to flexibility there was no significant difference between the means of Pre & Post levels of flexibility among undergraduate females of Daulat Ram College

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