



## Effect of Mallakhamb Exercise on Selected Physical Fitness Variables among College Men

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### Abstract

The purpose of the study was to find out the effect of mallakhamb exercise on selected physical fitness variables among college men. To achieve the purpose of the study, 15 subjects were randomly selected from Ramakrishna Mission Vivekananda University, Faculty of General & Adapted Physical Education & Yoga. Pre-test was conducted on selected physical fitness variables namely strength, agility, flexibility, and balance. After six weeks training programme post-test was conducted on selected physical fitness variables namely strength, agility, flexibility, and balance. To analyse the collected data paired 't' test was used. The experimental group showed significant difference on strength, agility, flexibility, and balance after six weeks mallakhamb training programme. The study concluded that eight weeks mallakhamb exercise training programme showed significant difference on selected variables. Therefore the finding suggests that the mallakhamb exercise is important for the development of strength, agility, flexibility, and balance among college men.

**Keywords:** Mallakhamb Exercise, Strength, Agility, Flexibility, Balance and College Men.

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### Introduction

Today's education not merely deals with mental enhancement of an individual, but also a source of physical activities that leads to all-round development of an individual. The best individual is one who is physically fit, mentally sound and sharp, emotionally balanced and socially well adjusted. It is therefore, 'physical education' said to be an integral part of 'total education'. Mallakhamb is a traditional Indian sport in which a gymnast performs feats and poses in concert with a vertical wooden pole or rope. The word also refers to the pole used in the sport. Mallakhamb derives from the terms malla which denotes a wrestler and khamba which means a pole. Mallakhamb can therefore be translated to English as "pole gymnastics".

### Selection of Subjects

To achieve the purpose of the study, 15 subjects were randomly selected from Ramakrishna Mission Vivekananda University, Faculty of General & Adapted Physical Education & Yoga. Their age ranged from 18 to 25 years.

### Selection of Variables

#### Independent Variables

Mallakhamb exercise

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### Dependent Variables

1. Strength
2. Agility
3. Flexibility
4. Balance

### Experimental Design

The study was formulated as a single group design, consisting of a pre-test and post-test. The subjects (N=15) were randomly assigned. Pre-test was conducted on selected variables such as strength, agility, flexibility, and balance. The readings were carefully recorded in their respective unit as pre-test score. After pre-test experimental group has under gone six weeks mallakhamb exercise training programme for one hour per day 5 days per week. After six weeks of training post test was conducted and the reading were carefully recorded as post test score. Paired "t" test was applied to analyse the collected data.

### Mallakhamb Training

Mallakhamb training was assigned to subjects for the period of six weeks. The different techniques of holds and grips on mallakhamb were taught to the subjects. During the experimentation the subjects were asked to perform for a quiet number of times till they get perfection of exercise under the keen supervision and assistance. This experiment was carried out in the evening 5 pm to 6 pm. The holds and grips that they practiced on mallakhamb were,

1. Front leg grips
  2. Hand stand leg grips
  3. Back leg grips
  4. Hanging with leg folding
  5. Arm pit grips
  6. Repetition of grips
  7. Turnings
  8. Abdominal balance
  9. Salutation
- After proper and sufficient warm up, the

subjects were asked to practice on mallakhamb pole.

**Training Programme**

Based on the literature available and the opinion of the experts the following training details were determined.

- Duration of the training – 6 weeks
- Number of days per week – 5 days
- Number of session per day – 1 session (1 Hour)

**Table I.** Criterion Measures

S.NO	VARIABLES	NAME OF THE TEST	UNITS OF MEASUREMENT
1	Strength	Pull ups	in number
2	Agility	Semo agility test	in seconds
3	Flexibility	Sit and reach	in centimeters
4	Balance	Stork balance test	in seconds

**Statistical Analysis**

Paired ‘t’ test was applied to find out the

significance difference between the pre-test and post-test means of on strength, agility, flexibility, and balance.

**Table II.** Significance of mean gains / losses between pre and post-test of strength, agility flexibility, and balance

S.No	Variables	Pre-test Mean	Post-test Mean	Mean Diff	‘t’	Table value
1	Strength	9.33	11.13	1.42	4.89*	2.14
2	Agility	14.79	13.68	1.13	3.99*	
3	Flexibility	14.74	16.31	1.56	20.56*	
4	Balance	0.78	1.10	0.39	3.11*	

\* Significant at 0.05 level (df 1, 14 = 2.14).

Table – II indicates that the obtained ‘t’ ratios are 4.89, 3.99, 20.56 and 3.11 on strength, agility, flexibility and balance respectively. The obtained t-ratio of strength, agility flexibility and balance are greater than the table value of 2.14, degrees of freedom of 1 and 14. It is observed that the mean gains and mean losses are statistically significant on strength, agility, flexibility and balance.

**Discussion on Findings**

The purpose of the present investigation was to find out the influence of six weeks mallakhamb exercise training programme on strength, agility, flexibility and balance among college men. In the present study, the results validate that six weeks mallakhamb exercise training showed significant changes on strength, agility, flexibility and balance from baseline to post treatment. The present study also confirms that the mallakhamb exercise is the superior training model to develop strength, agility, flexibility and balance of college men.

**Conclusions**

Based on the results of the study the following conclusions were drawn.

1. Within the limitations and on the basis of the findings of the study, it is very clear that, six

weeks mallakhamb exercise training produced significant changes on strength and agility among college men.

2. It was also concluded that six weeks mallakhamb exercise produced significant changes on flexibility and balance among college men.
3. Further, it was inferred that mallakhamb exercise training programme appears to be a safe and practical intervention tool for improving strength, agility, flexibility, and balance among college men.

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