

## Development of physical fitness through the training of mallakhamb skills

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### ■ ABSTRACT

The purpose of the study was to find out the development of physical fitness of school children through the training of mallakhamb skills. To achieve the purpose of the study, 60 male students were selected from Laxman Gyanpith School, Amdavad and their age ranged between 10 years to 15 years. The selected subjects were divided into two equal groups of 30 subjects in each. One was treated as experimental group and the second one was the control group. The experimental group was asked to practice basic skills of mallakhamb of five days in a week for duration of eight weeks and no training for control group. The pre-tested and post-test were conducted for the both groups. AAPERD test was used for the measurement of physical fitness variable and seat and reach for flexibility. The difference between the pre-test and post-test means of each group was calculated by applying 't' test. It was concluded that skills training of mallakhamb had significant improvement in the variable of physical fitness of experimental group than control group.

■ **Key Words** : Physical fitness, Flexibility, Mallakhamb skills

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Physical fitness, as a term, refers to the total dynamic physiological state of individual. There are number of physical fitness components e.g. speed, strength, endurance, flexibility, power, agility and maintenance of body weight (Hakey, 1973).

Developing an individual physical fitness is one of the major objectives of the process of physical education. Physical fitness is one the potential characteristics of every human being. Physically fit citizens are the major asset for a strong nation and hence, the physical fitness of the youth should be a national concern. Children's physical fitness is of interest to educate us as it improves health and prevent diseases (Prakash, 2000).

Fit people, fit nation is a slogan which emphasizes that the fit citizens are nation's best assets and weak one's are its liabilities.

Physical fitness is a trunk of a tree that supports many branches which represent all the activities and make life worth living; intellectual life, spiritual life, occupation, love and social

activities. It is one's richest possession; it can't be purchased but can be earned through a daily routine of physical exercise.

Mallakhamb is a natural form of exercise. The strength, stamina, power of a body is improved by performing Mallakhamb. It is a full body development sport and a natural way to develop our body. This game is a mother discipline which builds an ideal physical body structure. The strength, stamina etc. required for the sports like football, swimming, Hockey, tennis etc. can be improved by performing Mallakhamb.

Training denotes the process of preparing one for same task. Training is a systematic athletic activities of long duration progressively and individually graded aiming at modeling. The human physiology and functions are to meet the demanding task.

### ■ METHODOLOGY

**Subject :**

The study was conducted on 60 male students of

Laxman Gyanpith school, Ahmedabad age ranged from 10 to 15 years. The subjects were equally divided into one experimental group and one control group.

**Physical fitness tests :**

The test was conducted for AAHPERD youth physical fitness test and flexibility before and after 10 weeks training programme. The training schedule was prepared for experimental group namely, Mallakhambh training group. The time for the training was at evening *i.e.* 4.15 to 6.15 p.m. The difference between the pre-test and post-test means of each group in chosen variables were tested by applying ‘t’ test and the level of significance was set at 0.05 level of confidence.

**The participants undergone the following tasks :**

- Muscular strength : Pull ups, considered the number of pull ups.
- Muscular strength : Bent knee sit-up considered the number of sit-ups in 60 sec.
- Agility : Shuttle run : 4 x 30 time was taken in 1/100 sec.
- Explosive strength : Standing broad jump, best chance out of three in meter or centimeter.
- Speed : 50 yard run, time taken in 1/100 sec.
- Cardio-vascular : 600 yard run time taken in min./

- endurance
- Flexibility : Seat and reach test. Best result was recorded further.
- Training schedule : There were five days for training in a week for 10 weeks. The time for the training was at evening *i.e.* 4.15 p.m. to 6.15 p.m.

**■ OBSERVATIONS AND DISCUSSION**

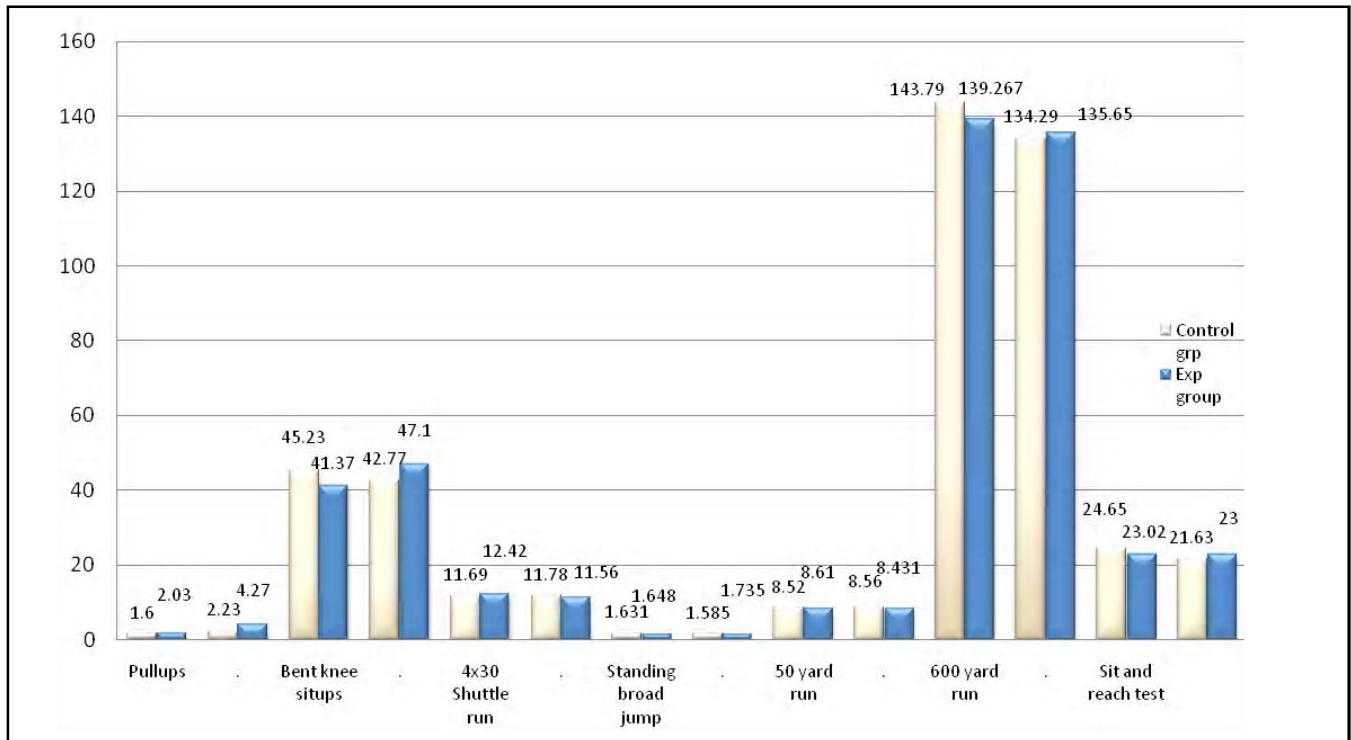
The result of the study of development of physical fitness is presented in tabular form.

The graphical presentation of mean scores is presented in Fig. 1.

The graphical presentation of mean scores is presented in Fig. 2.

**From the data of Table 1 and 2 and Fig.1 and 2 the following results were drawn:**

- The experimental group trained with Malkhambh skills for ten weeks, exhibited significant improvement as compared to control group in muscular strength by applying pull-up test. The growth and muscular strength of shoulder was found through the training of Mallkhamb skills.
- The experimental group trained with mallkhambh skills for ten weeks showed significant improvement as compared to control group in abdominal muscular strength and



**Fig. 1 : Pre-and post-tests means of control and experimental groups in physical fitness**

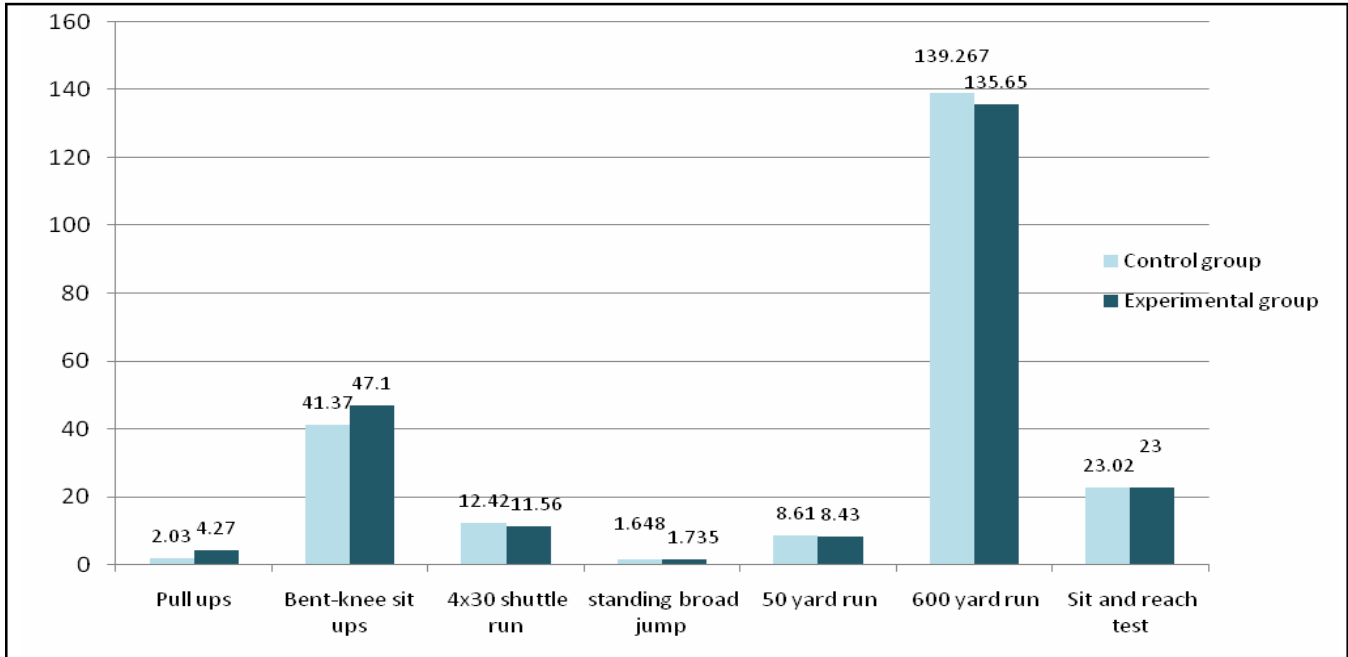


Fig. 2 : Post-tests means of control group and experimental groups in development of physical fitness

Table 1 : Significance of difference between pre-test and post-test means of a control group and an experimental group in development of physical fitness

Sr.No.	Activity	Groups	Pre-test mean	Post-test mean	Mean difference	S.D.	't' ratio
1.	Pull-ups	Control	1.6	2.03	0.43	1.50	1.57
		Experimental	2.23	4.27	2.04	1.20	9.27*
2.	Bent knee sit ups	Control	45.23	41.37	3.86	4.54	4.67*
		Experimental	42.77	47.1	4.33	4.2	5.65*
3.	4x30 shuttle run	Control	11.69	12.42	0.73	0.81	4.94*
		Experimental	11.78	11.56	0.22	0.63	1.91
4.	Standing broad jump	Control	1.631	1.648	0.017	0.12	0.91
		Experimental	1.585	1.735	0.15	0.12	6.85
5.	50 yard race	Control	8.52	8.61	0.09	0.45	1.12
		Experimental	8.56	8.431	0.129	0.65	1.09
6.	600 yard race	Control	143.79	139.267	4.253	12.58	.97
		Experimental	134.29	135.65	1.36	12.31	0.61
7.	Sit and reach test	Control	24.65	23.02	1.63	2.12	4.19
		Experimental	21.63	23	1.37	1.95	3.85

\*Significant at 0.05 level, t.05 (29) = 2.05

Table 2: Significance of difference between post-test means of a control group and an experimental group in development of physical fitness

Sr.No.	Activity	Control group Post-test mean	Experimental group Post-test mean	Mean difference	S.D. 't' ratio
1.	Pull-ups	2.03	4.27	2.24	3.86*
2.	Bent knee sit ups	41.37	47.1	4.34	5.08
3.	4x30 shuttle run	12.42	11.56	0.95	3.48
4.	Standing broad jump	1.648	1.735	0.22	1.52
5.	50 yard race	8.61	8.43	0.67	1.03
6.	600 yard race	139.267	135.65	12.23	1.14
7.	Sit and reach test	23.02	23	5.89	0.01

\*Significant at 0.05 level, t.05 (58) = 1.96

endurance by applying bent sit-ups test. This significant improvement in abdominal muscular strength and endurance was due to training of mallkhambh skills.

- The experimental group shown significant differences as compared to control group in agility by applying shuttle run test. These differences were due to training of mallkhambh skills.
- Explosive strength of leg of experimental group showed improvement after ten weeks training than control group. The result showed that the improvement in explosive strength was due to training of mallkhambh skills.
- There was improvement in speed of experimental group after ten weeks training of mallkhambh skills
- There were no significant differences between experimental group and control group on cardio-vascular endurance after ten weeks training of mallkhambh skills.
- From the mean differences, it could be concluded that there was improvement in experimental group than control group on flexibility due to ten weeks training of mallkhambh skills.

From the above discussion of findings (Table 1 and 2, Fig.1 and 2) and statistical information, it showed that the training of mallkhambh skills on muscular strength of shoulders, endurance and muscular strength of abdomen,

explosive strength of legs and flexibility were proved to be more effective as compared to speed and agility. When there was no effect on cardio-vascular endurance. Overall statistical analysis, as well as graphs presentation and discussion of findings, it could be concluded that there was improvement in physical fitness through the training of mallkhambh skills.

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