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EFFECT OF MALLAKHAMB ON VITAL CAPACITY AND CARDIOVASCULAR EFFICIENCY OF HIGH SCHOOL STUDENTS.



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ABSTRACT

The purpose of this study was to investigate the effect of Mallakhamb on Vital capacity and Cardiovascular function of High School Students. For this study 40 subject were selected randomly from J.S.P.M.High School Itawa ward Pusad Dist.Yavatmal.(M.S.). The subject were categorize in to two equal groups, one experimental group (Group A n1 = 20) and one control group (Bn2=20). It was also ensured that all them were medically fit and was interested to do the Mallakhamb to undergo the training for research project. Group A received Mallakhamb exercise while group B was treated as control. The design of the experiment has been

planned in three phases. All the subject of experimental group were exposed to a three month (12 week) training of mallakhamb exercise one hour daily in the evening. The variable Vital capacity measured by wet Spiro meter and cardiovascular efficiency measured by cooper's 12 minutes run and walk test. The training of mallakhamb reveled that there was significant improvement in vital capacity and cardiovascular efficiency.

KEYWORDS : *Mallakhamb, vital capacity, cardiovascular efficiency.*

INTRODUCTION

Mallakhamb as the name suggests is a pole used by wrestler for practicing their skills in the game KUSTI. But now a days the trend has changed and it has got a special identity. Mallakhamb needs concentration. Speed and flexibility. It is the only game which played against gravity.

The Origin of this ancient Indian sports mallakhamb can be traced to earlier part of the 12th century. A mention of wrestlers exercising on wooden poles is found in the Manasholas, written by chalukya in 1153 A.D. It was revived late in the 19th century by Balambhatta Dada Deodhar, physical instructor to Bojirao Peshwa II. He took great efforts to popularize this sports. Resemblance of the shape of the ancient and modern mallakahamb to the human structure can be easily seen. At first mallakhamb was always concerned with kusti to learn different styles of kusti. Now a says the game also includes Gymnastics. It is leaving ancient grips. The present game includes supple body, alert muscles and mind, concentration and expansion of the muscles, rythem in breath, eyes wide open

etc. Now a days at the competitive level the degree of difficulty is increasing day by day. The need of safety instruments is felt. The mallakhamb as a competitive sports. The mallakhamb federation of India is the official Indian National Federation. 29 state of India has participate in mallakhamb competitions at National level. National level mallakhamb tournaments were first organized more than 25 years ago. The National Level Tournaments will be organized in four separate groups according to age.

It is a sports that confines various exercise that improve flexibility, strength, coordination and agility. Along with neuromuscular development, area of personal character, discipline and self motivation will be strongly enhanced. It improve the concentration, health immunity power, increase the competitive spirit, and to fight stress level in an organized and better ways.

PURPOSE OF THE STUDY

The purpose of the study was to investigate the effect of mallakhamb exercise on vital capacity and cardiovascular efficiency of high school students.

METHOD AND MATERIAL

For this study 40 male subject were selected randomly from J.S.P.M. High School Itawa ward pusad Dist-Yavatmal (M.S.). The subject age group was ranging from 14 to 15 year. The subject were divided in to two equal groups, one experimental group (Group A n₁=20) and one control group (Bn₂=20) both group are medically fit to undergo the test. Some students also interested to do the mallakhamb exercise for the competition purpose and also for research project. Those students interested for doing mallakhamb which take in group A and called experimental group. While group B was treated as control group. The design of the experiment has been planned in three phases. All subject of experimental group those who are interested for doing mallakhamb were exposed to a three months (12 week) training of mallakhamb exercise one hour daily in the evening after the school closed.

The phase-wise design of the experiment has been planned as follows.

Phase – I Pretest

Phase- II Mallakhamb Training

Phase-III Post test

Pre-Test (Phase-I)

All the subjects of experiment and control groups were exposed to vital capacity measure by wet spiro meter and cardiovascular efficiency by cooper's 12 minutes run and walk test to record the pre test data.

Treatment Stimuli (phase-II)

After the completion of pretest. All the subjects of experimental group were exposed to a three month (12 week) training of Mallakhamb as a school competition purpose for one hour daily in the evening 5.00 to 6.00 pm after the school finish except Sunday and holidays.

Group A – Mallakhamb exercise

For a total period 12 week the researcher himself take a practice and teach mallakhamb exercise for a school competition purpose and secondly for research.

Schedule of Mallakhamb exercise.

Week	Mallakhamb exercise	
1st week	Salami, Sadhi udi, Bagal udi, Sadhi tedi, Khanda udi, Kaman udi,	Teaching, Correction and Demonstration and supports
2nd week	Salami, Sadhi udi, Bagal udi, Sadhi tedi, Khanda udi, Kaman udi,	Teaching, Correction and Demonstration and supports
3rd week	Salami, Khanda udi, Kaman udi, Sadi udi dashrang, Bagal udi dashrang, Sadhi tedi dashrang.	Support and correction
4th week	Salami, Khanda udi, Kaman udi, Sadi udi dashrang, Bagal udi dashrang, Sadhi tedi dashrang.	Support and correction
4th week	Salami, Khanda udi, Kaman udi, Sadi udi dashrang, Bagal udi dashrang, Sadhi tedi dashrang, ghoda udi	Practice one by one
5th week	Salami, Khanda udi, Kaman udi, Ghoda udi, Sadi udi dashrang, Bagal udi dashrang, Sadhi tedi dashrang, Potacha tajva, Bajrang Pharara, Bagal Pharara.	Practice one by one
6th week	Salami, Khanda udi, Kaman udi, Ghoda udi, Sadi udi dashrang, Bagal udi dashrang, Sadhi tedi dashrang, Potacha tajva, Bajrang Pharara, Bagal Pharara, Rukshasan on top, Padmasan on top, Sui dora etc.	Practice one by one and make perfection
7th week to 12th week	Salami, Khanda udi, Kaman udi, Ghoda udi, Sadi udi dashrang, Bagal udi dashrang, Sadhi tedi dashrang, Potacha tajva, Bajrang Pharara, Bagal Pharara.	Practice one by one and continue make perfection

Post Test (Phase III)

Lastly, when the Mallakhamb schedule period of 12 week was completed, the post test on vital capacity and cardiovascular efficiency was assessed for all the subject of both experimental and control group.

Effect of Mallakhamb on Vital Capacity & Cardiovascular Efficiency

	Pre test Mean	Post test Mean	SD	
			Pre	Post
Experimental group vital capacity (lit / Min.)	3.05	6.09	0.28	0.30
Control group vital capacity (Lit./Min.)	3.53	3.59	0.22	0.25
Experimental group cardiovascular efficiency (Meter)	1626.0	1998.91	348.26	284.70
Control group Cardiovascular efficiency (Meter)	1385.29	1391.86	224.26	211.10

For Vital capacity indicates that the pre test performance score of Mallakhamb exercise group and control group was 3.05 (SD 0.28) and 3.53 (SD 0.22) respectively. This results indicates that the pre test means of Mallakhamb exercise group and control group in vital capacity test were more or less similar.

How ever post test performance score of the mallakhamb exercise and control group were 6.09 (SD 0.28) and 3.59 (SD=0.22) respectively. This result indicates that post test means of both the mallakhamb exercise group and control groups in vital capacity were different.

For cardiovascular efficiency indicates that the pre test performance score and mallakhamb exercise group and control group were 1385 (SD=224.46) and 1391.86 (SD=211.10) respectively. This result indicate that pre test means of mallakhamb exercise group and control group in cardiovascular efficiency test were more or less similar.

How ever, post test performance score of the mallakhamb exercise and control group were 1998.91 (SD=348.26) and 1391.86 (SD=224.46) respectively. This result indicate that post test means of mallakhamb exercise group and control group in cardiovascular efficiency test were different.

From the above statistic significance the result reveled that

- Control group did not show significant improvement in vital capacity and cardiovascular efficiency.
- Experimental group (Mallakhamb exercise) show significant improvement in vital capacity and cardiovascular efficiency.

Hence Mallakhamb exercise show significant superiority over the control group improving vital capacity and cardiovascular efficiency.

CONCLUSION

This study on the basis of the results, warrants the following conclusion. 12 week of Mallakhamb exercise schedule was found effective in improving Vital capacity and cardiovascular efficiency of high school student.

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