

METHODOLOGY

A) Method of Research

The present study will be undertaken with a view to study the effect of yogic practices and weight training exercises on and cardiovascular endurance and motor fitness level of in college male students of Satara district. Hence in this study on experimental method will be used.

B) Population

To achieve the purpose of this study, a total of one hundred male college students (n=100) from Raja Shripatrao Bhagwantrao Mahavidyalaya, Aundh, Shahajiraje Mahavidyalay, Khatav, Kisan Veer Mahavidyalaya, Wai and Minaiben Mehta College, Pachgani from Satara district, will be selected randomly. All the selected students were then again randomly assigned into four equal groups and they are named as under

Group 'A' (n=25) Yogic training group

Group 'B' (n=25) Weight training group

Group 'C' (n=25) Yogic training and weight training mixed group

Group 'D' (n=25) Control group.

C) Training Schedule

A schedule of yogic practices will be prepared in consultation with expert and then it will be implemented over the

students of Group 'A' for three days a week (I,e, on Monday, Wednesday and Friday) for a total period of 16 weeks.

Similarly a schedule of weight training exercises will be prepared and implemented over the students of Group 'B' for three days (I,e, on Tuesday, Thursday and Saturday) for over a total period of 16 weeks

Both these yogic and weight training scheduled prepared above will be implemented on alternate days on the subjects of Group 'C' for six days of the week (I,e, on all days) for a period of 16 weeks.

The control group 'D' will not be given any of the above specified type of trainings.

The training for all above groups A to D will be conducted for 16 total periods of weeks.



❖ TRAINING SCHEDULES

Yogic practices training programme thrice a week is as follows.

1) Training schedule during 1st and 2nd weeks

Day	Asanas	Pranayama	Shawasan	Rest after each set
Tue	30 Min.	20 Min.	5 Min.	2 min.
Thu	30 Min.	20 Min.	5 Min.	2 min.
Sat	30 Min.	20 Min.	5 Min.	2 min.

2) Training schedule during 3rd and 4th weeks

Day	Asanas	Pranayama	Shawasan	Rest after
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				each set
Tue	30 Min.	20 Min.	5 Min.	2 min.
Thu	30 Min.	20 Min.	5 Min.	2 min.
Sat	30 Min.	20 Min.	5 Min.	2 min.

3) Training schedule during 5th and 8th weeks

Day	Asanas	Pranayama	Shawasan	Rest after each set
Tue	30 Min.	20 Min.	5 Min.	2 min.
Thu	30 Min.	20 Min.	5 Min.	2 min.
Sat	30 Min.	20 Min.	5 Min.	2 min.

4) Training schedule during 9th and 12th weeks

Day	Asanas	Pranayama	Shawasan	Rest after each set
Tue	30 Min.	20 Min.	5 Min.	2 min.
Thu	30 Min.	20 Min.	5 Min.	2 min.
Sat	30 Min.	20 Min.	5 Min.	2 min.

5) Training schedule during 13th to 16th weeks

Day	Asanas	Pranayama	Shawasan	Rest after each set
Tue	30 Min.	20 Min.	5 Min.	2 min.
Thu	30 Min.	20 Min.	5 Min.	2 min.

Sat	30 Min.	20 Min.	5 Min.	2 min.
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Note : Details of Yogic Practices such as Asanas, Prayamas and kriyas will be decided later with consultation with Guide and Experts in Yoga.

Schedule of Weight Training Exercises

- 1) Training schedule during 1st and 2nd weeks

Day	Weight X Sets	Period of Repetitions	Rest In between	Rest after each set
Tue	20 Kg.X 3	10 Min.	2 Min.	4 Min.
Thu	20 Kg.X 3	10 Min.	2 Min.	4 Min.
Sat	20 Kg.X 3	10 Min.	2 Min.	4 Min.

- 2) Training schedule during 3rd and 4th weeks

Day	Weight X Sets	Period of Repetitions	Rest In between	Rest after each set
Tue	25 Kg.X 3	10 Min.	2 Min.	4 Min.
Thu	25 Kg.X 3	10 Min.	2 Min.	4 Min.
Sat	30 Kg.X 3	10 Min.	2 Min.	4 Min.

- 3) Training schedule during 5th to 8th weeks

Day	Weight X Sets	Period of Repetitions	Rest In between	Rest after each set
Tue	30 Kg.X 3	15 Min.	2 Min.	4 Min.
Thu	35 Kg.X 3	15 Min.	2 Min.	4 Min.
Sat	35 Kg.X 3	15 Min.	2 Min.	4 Min.

- 4) Training schedule during 9th to 12th weeks

Day	Weight X Sets	Period of Repetitions	Rest In between	Rest after each set
Tue	35 Kg.X 3	15 Min.	2 Min.	4 Min.
Thu	35 Kg.X 3	15 Min.	2 Min.	4 Min.
Sat	40 Kg.X 3	15 Min.	2 Min.	4 Min.

5) Training schedule during 13th to 16th weeks

Day	Weight X Sets	Period of Repetitions	Rest In between	Rest after each set
Tue	35 Kg.X 3	20 Min.	2 Min.	4 Min.
Thu	35 Kg.X 3	20 Min.	2 Min.	4 Min.
Sat	40 Kg.X 3	20 Min.	2 Min.	4 Min.

Details of weight training exercises will be decided in due course of time with consultation with guide and expert in weight training.

D) Experimental Design

As stated above, all the selected subjects will randomly assigned into four groups, viz., Group A, Group B, Group C, and Group D consisting of 25 subjects each. While, group B was treated as control. The design of the experiment will be planned in three phases as under:

- Phase-I : Pretest
- Phase-II : Training or Treatment for 16 weeks
- Phase-III : Post test

Phase - I : Pre – Test

Since this study intends to study the effect of yogic practices and weight training exercises over lungs and cardiovascular efficiency and physical fitness among college students. All the subjects of experimental and control groups were exposed to standard tests to their cardiovascular endurance and motor fitness level specifically Speed, Endurance, Flexibility, Agility and Reaction time through specific AAPHER Test.

Phase – II : Treatment stimulus

After the pre test is over, all the subjects of experimental group “A” and “B” were exposed respectively to sixteen weeks training of yogic practices and weight training exercises and students that in Group “C” for both practices of yogic practices and weight training for 2 hours daily i.e. accept Sundays and holidays. The subjects of control group will neither receive above mentioned yogic practice nor weight training, however, they were kept busy with some recreational activities for 2 hours daily (1 hour in the morning and 1 hour in the evening). The subjects of experimental groups were given training on yogic and weight Training for the total of 16 weeks period of the experiment.

For the total period of sixteen weeks one yoga teacher will be appointed to organize daily training programmes (yogasanas followed by some pranayama) in the morning at 7:15 to 8:15 am and 5:15 to 7:15 pm in the overall supervision of the present investigator.

Similarly a Gym Trainer will be appointed to conduct the practice of Weight Training for the groups concerned.

Phase –III : Post – Test

Finally, when the treatment or training period of sixteen weeks will be over, the post-test namely AAPHER and Harvard step test will be conducted over all the subject of four groups like the pre test, for measuring cardiovascular endurance and motor fitness level respectively.

Variable Selected for the Study

Before and after the experiment following variables on the entire subject were assessed with the help of some standard test items:

Variable	Tools / Method Used
Lungs Capacity	Wright's Peak Flow Meter
Cardiovascular Endurance	Harvard Test
Motor Fitness Level	AAPHER

E) Collection of Data:

The findings of pre-test using AAHPER test and Harvard Step Test will be recorded prior to implementation of training schedule. After the training schedule of 16 weeks the same test will be conducted and new records will be collected. Then they will be properly tabulated.

F) Analysis and Interpretation of Data :

All the data gathered through pre-test and post-test and other literary sources will be analysed using suitable statistical tools such as tabulation, percentages, graphs, chi - square value test etc, and on it's basic necessary inferences and conclusions will be derived.

Schedule of work

Stage	Work	Duration in Month	Starting Date	Completion date
01	Defining Research problem	1	1 st March 2011	31 st July 2011
02	Review of Literature	3	1 st August. 2011	31 st Oct 2011
03	Formulate Hypothesis and design research (Including sample design)	2	1 st Nov 2011	31 st Dec 2011
04	Pilot Study (sample)	1	1 st Jan. 2012	31 st Jan 2012
05	Collection of data (full)	9	1 st Feb. 2012	31 st May 2012
06	Data Analysis (Simultaneous)	2	1 st June 2012	31 st Oct. 2012
07	Testing of Hypothesis	3	1 st Nov.. 2012	31 st Dec. 2012
08	Final Report preparation Rough print / correction	2	1 st Jan. 2013	28 th Feb 2013
09	Final print and binding	1	1 st March 2013	31 st March 2013
	TOTAL PERIOD	24 Month	1st March 2011	31st March 2013

