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Effect of Suryanamaskar on selected motor fitness component of high school student

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Abstract
The purpose of the study was to find out the effect of Suryanamaskar on selected motor fitness component of high school student. To achieve the purpose of the study 30 girl's student was selected randomly from Bhupatinagar kanya Vidyalaya, Purba Medinipur district of west Bengal. Their age ranges from 14 to 16 years. To find out the effect of Suryanamaskar on selected motor fitness component of high school girls students the data was collected through the administration of vertical jump for power, shuttle run for agility, sit-up for muscular strength test before and after the Suryanamaskar training programme of six weeks. The collected data were analyzed by Dependent 't' test. It was concluded that there are significance differences in motor fitness variables between the pre and posttest of experimental group. It was found that experimental group is highly muscular strength, muscular power, and agility then that of control group. The Present Study will be helpful to understand the value of Suryanamaskar to develop motor fitness of the high School students.

Keywords: Fitness, physical fitness, motor fitness, Suryanamaskar

Introduction
Today we are in 21st century there is a landmark development in the science and Technology including Space, Defense, Atomic energy, Computer, Internet service etc. Due to this advanced scientific technological invention the body movements of the human being have been restricted and also the sedentary habit has been created. This has resulted in high incidence of obesity, high rate of heart diseases and diabetes. These factors are very harmful to the human beings and their impact is visible not only on the elderly people but also on the younger generation. Suryanamaskar have a holistic effect and bring body, mind, consciousness and soul into balance. In this way Suryanamaska assists us in coping with everyday demands, problems and worries. Suryanamaska helps to develop a greater understanding of our self, the purpose of life.

Statement of the Problem
The main purpose of the study was to find out the effect of Suryanamaskar on selected motor fitness component of high school student.

Significance of the Study
1) The Present Study was helpful the researcher and the student of high school to know the importance of motor fitness.
2) The Present Study was helpful to know the student about their motor fitness.
3) The Present Study was helpful to understand the value of suryanamaskar to develop motor fitness of the high school student.
4) The Present Study was support to fitness award among teacher's parents and students.
5) The Present Study was helpful to improve motor fitness variables of high school student.

Hypothesis
It was hypothesized that there was a significant difference in motor fitness due to effect of Suryanamaskar on selected high school students.

Limitations

i) Personality traits and habits were not considered in the study.
ii) There was no control over diet and daily routine of the all subjects.
iii) No specific motivational technique was involved while collecting data.
iv) The previous training and motor fitness programme was not considered.
v) In the study caste, religion of the student was not considered.
vi) Other activities of students were not considered.
vii) Heredity factor was not considered.

Delimitations

The scope of the present study was delimited to the following aspects -

i) The study was delimited to thirty (30) subjects only.
ii) The study was delimited to the subjects of Bhupatinagar kanya Vidyalaya, W.B
iii) The study was delimited to Girl's student only
iv) The age of students varied from 14-16 years.
v) The study was delimited to measure motor fitness through vertical jump, shuttle run, sit up test.
vi) The study was delimited to measure variables such as explosive leg power, muscular strength and agility.

Review of Related Literature

N. A. Singh (2014), studied relationship of selected anthropometric measurement and motor fitness components the performance of women players of Manipur The main purpose of the study was to determine the relationship of selected anthropometric measurement and motor fitness component to the performance of Boxing, Fencing and Wushu Women players of Manipur State.

Ajay Y. Karkare (2012), the purpose of the study was to compare fundamental motor skills among tribal and non-tribal players. Eight hundred tribal and non-tribal player's i.e.200 each from tribal boys. Non-tribal boys, tribal girls and non-tribal girls were selected as subjects for the purpose of the study. Result revealed that tribal players and non-tribal players differed significantly on all the item of motor skill test.

Methodology

Subjects

For the present study researcher was selected subjects from Bhupatinagar Kanya Vidyalaya. For this study researcher randomly selected thirty (30) Female subjects from Bhupatinagar Kanya Vidyalaya. The age of the subjects ranged between 14 to 16 years.

Criterion measures

For the present study the researcher used to measure the following motor fitness variables through the Sit-up, vertical jump, Shuttle run test.

Muscular Strength: To measure the muscular strength (Abdominal muscle) Sit-up test were used and it was measured in number.

Power: To measure the power vertical jump was used and it was measured in inches.

Agility: To measure the agility Shuttle run was used and it was measured in second.

Training Schedule

Exercise	Suryanamaskar (in 12 counts)
Time	2.30 to 3.30
Venue	Bhupatinagar Kanya Vidyalaya
1st week	6 repetition
2nd week	6 repetition
3rd week	8 repetition
4th week	8 repetition
5th week	10 repetition
6th week	10 repetition

Note: 10 second rest after one repetition

Collection of Data

To find out the effect of suryanamaskar on selected motor fitness component of high school students the data was collected through the administration of vertical jump for power, shuttle run for agility, sit-up for muscular strength test before and after the suryanamaskar training programme of six weeks.

Statistical Technique

The collected data of this study tabulated in different tables for the statistical treatment. The hypothesis was tested and results were interpreted after analyzing the statistical findings. To see any significant difference dependent 't' test was used at 0.05 level of confidence.

Table I: Mean differences between the pre and post test of experimental groups on muscular power (Vertical jump in inches)

Sl.no.	Group	Test	N	M	SD	MD	SE	't' value
1	E.G	Pre test	15	0.56	0.44	0.118	0.04	2.95*
2	E.G	Post test	15	0.67	0.48			

*Significance at .05 level

Tabulated' value of df (14) =2.14

Table-I shows that the pre and post test mean of experimental group on muscular power are 0.56 and 0.67 and their calculated 't' value is 3 which is grater than that of tabulated value 2.14 at 0.05(14) level of confidence. It was indicated that there was significance difference between the pre and post test of experimental group on muscular power. It can be said that six weeks suryanamaskar effect on muscular power of experimental group.

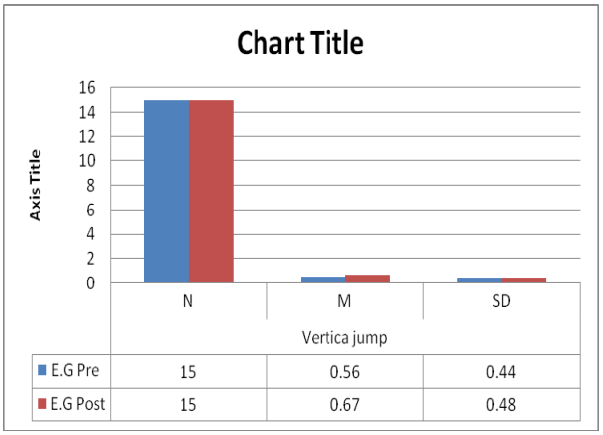

Fig I: Graphical presentation of means between pre and post test the

experimental groups on muscular power

Table II: Mean differences between the pre and post test of experimental group on agility (shuttle run in seconds)

S.L	Group	Test	N	M	SD	MD	SEM	't' value
1	E.G	Pre	15	12.099	0.90	.34	1.81	2.81*
2	E.G	Post	15	11.76	0.45			

*Significance at .05 level
Tabulated 't' value of df (14) =2.14

Table-II shows that the pre and post test mean of experimental group on muscular power are 12.099 and 11.76 and their calculated 't' value is 2.81 which is grater than that of tabulated value 2.14 at 0.05(14) level of confidence. It was indicated that there is significance difference between the pre and post test of experimental group on agility. It can be said that six weeks suryanamaskar effect on agility of experimental group.

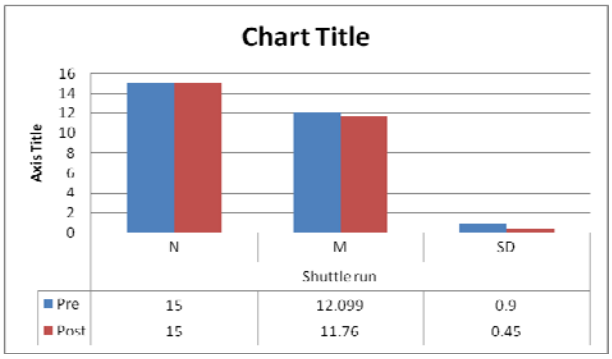

Fig II: Graphical presentation of means between pre and posttest the experimental groups on agility

Table III: Mean differences between the pre and post test of experimental groups on muscular strength (Sit-ups in numbers)

SL. no.	Group	Test	N	M	SD	MD	't' value
1	E.G	Pre test	15	21.9	6.82	7	6.54
2	C.G	Post test	15	28.9	6.65		

*Significance at .01 level
Tabulated t' value of df (14) =2.14

Table-3 shows that the pre and post test mean of experimental group on muscular
Strength are 21.9 and 28.9 and their calculated 't' value is 6.54 which is grater the that of tabulated value 2.98 at 0.01(14) level of confidence. It was indicated that there is significance difference between the pre and post test of experimental group on muscular strength. It can be said that six weeks suryanamaskar effect on muscular strength of experimental group.

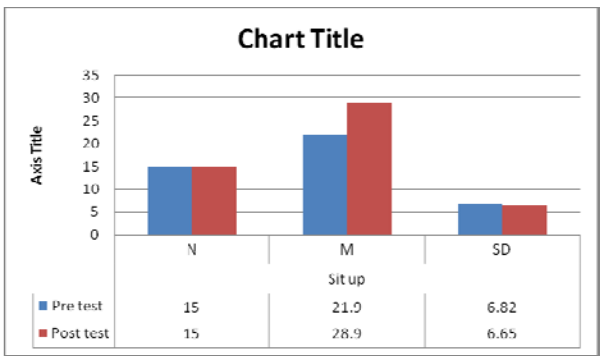

Fig III: Graphical presentation of means between the pre and post experimental group on muscular strength

Conclusion

On the basis of the results and findings it was concluded that there are significance differences in motor fitness variables between the pre and post test of experimental group. It was found that experimental group is highly muscular strength, muscular power, and agility then that of control group. It may be attributed to the fact that six weeks suryanamaskar training may be improve the muscular strength, muscular power and agility of the experimental group.

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