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Impact of Yogic and Physical exercises on Personality variables; A study on College level students

Shahid Bashir[1*] and Jitendra Kumar Thakur[2]
[1]RTM University Nagpur, India
[2]Wainganga College of Physical Education Sakoli, Maharashtra, India
shahidbashir9999@gmail.com

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Abstract

Exercises are the building blocks of sound mind and sound body. Without exercises we can not achieve the dream of healthy nation. In this research article researcher has tried an experimental designe to highlight the benefits of yogic and physical exercises in detail .The research parameters were taken according to the common needs of human beings. The experiment were done on college level students in order to benefit them in achieving a normal level of fitness.

Keywords: Design, Detail, Parameters, Human Beings.

Introduction

Modern life has removed man from natures begin and rhythmic influence. The internal rhythms the inherent clock-work like nature of the nervous and endocrine systems have become imbalanced through the effect of stress, tension resulting feeling of discomfort and lack of well-being and leading to disease. But we have followed physical exercise and yogic exercises for promoting physical fitness[1].

The term exercise is often applied to asana but asana should never be confused with an exercise. The work exercise gives us an idea of quick and force movement of the body or its parts and repeated action which usually lead to an exertion, tension and fatigue. Asanas on the other hand are practice slowly and steadily which bring about physical and mental relaxation. The purpose of body building is absent in asanas[2]. Man is always striving for perfection in every area of knowledge and practice. Human is unique product to nature's creation and evaluation. It is because of his highly developed muscular and nervous system, which enables him to think, express and search whatever he wants[2].

Yoga: Yoga is art of living and yogasanas are the scientific procedure. This is the only exercise which affects in most parts of the body. The health of our body and mind depends on the soundness of the health of our internal organs the heart, lungs, digestive system, glands, nerves system, muscular system etc. Yoga exercises gently tone and shape the body, improve posture, flexibility and contribute to feeling of well-being promotion to positive health, to the professional in increasing their skills[3].

Statement of the problem: Exercises play a prominent role in keeping a man physically as well as mentally fit. So the researcher has try to find out the; Impact of yogic and physical exercises on personality variables; A study on college level students.

Objective: To assess the effect of yogic and physical exercises on psychological, motor and physiological variable of college level students. To find the nature of relation exist between yoga and other research variables.

Significance: The study w would be significant in the following aspects: i. The result of this study may help the students to know the impact of yogic and physical exercises on physical fitness. ii. To devise specific yogic and physical exercise training programme for college students.

Hypothesis: It is hypothesized that yogic exercise and physical exercise would significantly improve the selected motor ability components, physiological and psychological variables of college students. It is hypothesized that there would be positive correlation of yogic and physical exercises, Emotional intelligence, personality and social maturity with aggressive behavior and anxiety behavior of college students.

Delimitation: The studies have been delimited in the following aspects: i. The study is conducting only on college students of Vidharb, Maharashtra . ii. The subject's age ranged from 18 to 25 years. iii. The study is conducting only for boys. iv. Selected yogic exercises only applied.

Limitation: The study will be limited to the following respects, and these limitations will be taken into consideration in the interpretation of the results. The day-to-day activities that weight affects the performance which may have an affect on the results of the study will be considered as limitation. Certain factor like food habits, life style, diet and other involvement of

the boys which might affect the results will consider as limitation. No special motivation techniques have been used during the collection of data.

Methodology

This section includes the information regarding selection of subjects; sources of data, sampling procedures, selection of test, criterion measures, collection of data and administration of test have been described.

Selection of Subjects: 160 college students were selected as subjects from vidharb area [HVPM Mandal Amravati] and their age was ranging between 18 to 25 years.

Sampling Procedure: Simple random sampling method was employed for the selection of subjects for the study.

Formation of Groups: The researcher divided the 60 adults into three equal groups on the basis of the mean performance of pre-test score. The groups were equated and distributed into two homogeneous groups namely. i. 2-Experimental Group , ii. One Control Group.

Criterion Measures: Following criterion measures was selected for testing the hypothesis on present study. i. Speed, ii. Agility, iii. Cardio vascular endurance.

Fifty (50) Yard Dash: Purpose: To measure speed.

Equipments: whistle, measuring tape, marking powder and clapper.

Procedure: Speed of total body movement is measured by the 50 yards dash. Two parallel lines are marked on the floor 50 yards apart, one line is used as a starting line and the other as the finish line. On the signal Ready? Go! The subjects start running at their best to reach the finish line at their earliest. The clasped between the starting signal and the crossing of the finish line is the score for the one trial, which is permitted.

Scoring: The interval between the starting signal and the instant subject crosses the finish line is the score of the test. The time is recorded correct up to tenth of a second.

Agility – SEMO Agility Test: Purpose: To measure agility ability of the subject during forward, sideward and backward maneuvering movements

Equipments: A stopwatch, four plastic cones 9" x 9" base having 12" height (or any suitable alternate substitute objects) and a basketball court or any smooth area measuring 12' x 19'

Procedure: After a demonstration given by a trained helper, the tester asked the subject to stand just outside the marked rectangle at the starting point (S). With his back towards the free throw line, the subject waits for the single Ready, Steady, Go. At the word 'Go' the tester starts the stopwatch while the subject starts side stepping to his/her right at his/her fastest speed until he/she reaches outer corner of the second cone from where the subject starts back pedaling (running backwards) from the outer corner of the second cone to the inner corner of the cone number 3, from where he/she comes out of the test rectangle and takes forward running sprint from cone 3 to cone 1 just outside the 19' marked line.

As soon as the subject reaches the cone no.1 he/she is to take a side turn and again run back pedaling to reach the inner corner of cone no.4 at the free throw line where he/she has to change the direction to perform another sprint from the outer corner of the test rectangle at cone no.4 to cone no.2 where he/she is to perform a side step to his/her left to reach the finish line as rapidly as possible with his/her best efforts. As soon as he/she steps outside the finish line with his/her both feet, the tester stops the stopwatch.

Scoring: Each subject was given two trials and time of each trial was noted accurate up to 0.1 second. The lesser value of the time out of the two trials was the score of the subject.

600 yard Run-walk test: Purpose: To measure cardiovascular endurance.

Equipments: Measuring tape marking powder, stop watch.

Procedure: The run-walk is designed to measure cardio-vascular efficiency. The people use standing start. At the signal Ready and Go the subject starts running the 600 yard distance, the running may be interspersed with walking. Time is recorded in minutes and seconds.

Collection of Data: For data collection two test was conducted i. Pre-test: A Pre-test was conducted for knowing the equal distribution of both the group ie. two Experimental groups and Control group. ii. Post-test: After sixteen weeks training programmed final test was conducted for the final result collected pre-test and post test data was further put for analysis

Results and Discussion

The researcher conducted a study on impact of yogic and physical exercises on personality variables; A study of college level students. For the purpose of this study the researcher collected data on 160 college students of H.V.P.M Amravati.

Analysis of Data: To determine the significant difference in the means of Physical Fitness adults between the two groups as well as between the pre-test and post test means of experimental and control group t-test was employed.

Level of Significance: To find out the significance difference, level of significance was set at 0.05 level of confidence.

Findings of the statistical analysis have been shown in the following tables

Table-1 presents the results regarding the study of effect of yogic exercises and physical exercises on the various physiological parameters like speed. The data for pre training (Yoga as well as Physical Exercises) showed that for the Yoga Practitioners the mean speed was 7.9±1.2, while that for the Physical Exercise Practitioners was 7.6±1.5 and for the control group i.e. Non-Practitioners it was 8.2±1.4. Subsequent to the training duration, the speed measurements were again recorded from the study participants. The data indicated that for Yoga Practitioners, Physical Exercise Practitioners and Non-Practitioners, the mean speed was 7.2±1.3, 6.4±0.9 and 8.4±1.3 respectively. The comparative assessment of the speed before and after the training duration showed that there was significant change in the speed of the subjects belonging to Yoga and Physical Exercise Practitioners group. However, no significant change was observed in the speed of the Non-Practitioner group. Thus, on the basis of the study results, it is concluded that the Yoga and Physical Exercise training can significantly increase the speed.

Table-2 resents the results regarding the study of effect of yogic exercises and physical exercises on the various physiological parameters like agility. The data for pre training (Yoga as well as Physical Exercises) showed that for the Yoga Practitioners the mean agility was 15.2±1.8, while that for the Physical Exercise Practitioners was 15.4±2.1 and for the control group i.e. Non-Practitioners it was 15.1±2.4 Subsequent to the training duration, the agility measurements were again recorded from the study participants. The data indicated that for Yoga Practitioners, Physical Exercise Practitioners and Non-Practitioners, the mean agility was 13.1±1.9, 12.8±2.3 and 14.9±2.1 respectively. The comparative assessment of the agility before and after the training duration showed that there was significant reduction in the agility of the subjects belonging to Yoga and Physical Exercise Practitioners group. However, no significant change was observed in the agility of the Non-Practitioner group. Thus, on the basis of the study results, it is concluded that the Yoga and Physical Exercise training can significantly lower the agility.

Table-3 presents the results regarding the study of effect of yogic exercises and physical exercises on the various physiological parameters like cardio respiratory endurance. The data for pre training (Yoga as well as Physical Exercises) showed that for the Yoga Practitioners the mean cardio respiratory endurance was 4.3±1.2, while that for the Physical Exercise Practitioners was 4.2±1.3 and for the control group i.e. Non-Practitioners it was 4.4±1.2. Subsequent to the training duration, the cardio respiratory endurance measurements were again recorded from the study participants. The data indicated that for Yoga Practitioners, Physical Exercise Practitioners and Non-Practitioners, the mean cardio respiratory endurance was 3.3±1.1,3.1±1.2 and 4.2±1.1 respectively. The comparative assessment of the cardio respiratory endurance before and after the training duration showed that there was significant reduction in the cardio respiratory endurance of the subjects belonging to Yoga and Physical Exercise Practitioners group. However, no significant change was observed in the cardio respiratory endurance of the Non-Practitioner group. Thus, on the basis of the study results, it is concluded that the Yoga and Physical Exercise training can significantly lower the cardio respiratory endurance.

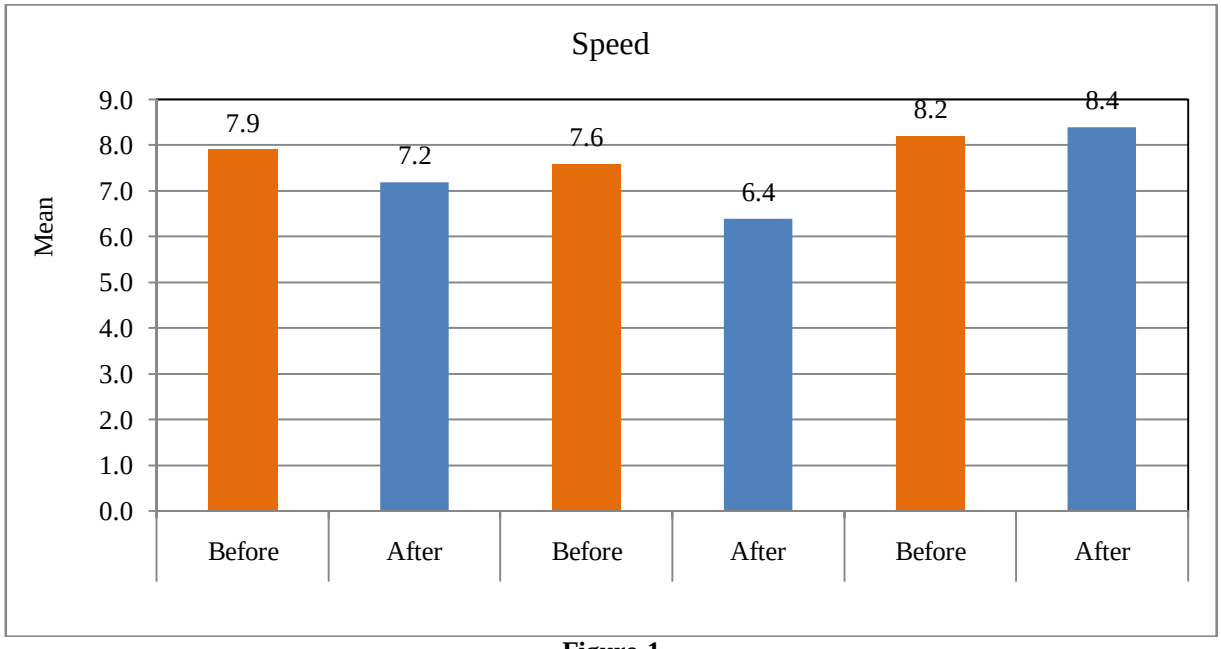

Figure-1
Pre-Test and Post Test of speed of control Group and Experimental Group before and after exercise

Table-1
Mean, Standard Deviation, MD, t-ratio and p- value for the Data on Speed of Pre and Post-tests of control group and Experimental Groups

Exercise	Groups	Mean	SD	MD	t' Value	P Value
Yoga Practitioners	Before	7.9	1.2	0.7	1.999	<0.05
	After	7.2	1.3			
Physical Exercise Practitioners	Before	7.6	1.5	1.2	2.137	<0.05
	After	6.4	0.9			
Non Practitioners	Before	8.2	1.4	-0.2	-0.349	NS
	After	8.4	1.3			

SD: Standard Deviation; MD: Mean Difference.

Figure-2
Graphical Representation on Pre-Test, Post Test of Agility of control Group and exp. Group before and after exercise

Table-2
Mean, Standard Deviation, MD, t-ratio and p- value for the Data on Agility of Pre and Post-tests of control group and Experimental Groups

Exercise	Groups	Mean	SD	MD	t' Value	P Value
Yoga Practitioners	Before	15.2	1.8	2.1	2.746	<0.05
	After	13.1	1.9			
Physical Exercise Practitioners	Before	15.4	2.1	2.6	2.914	<0.05
	After	12.8	2.3			
Non Practitioners	Before	15.1	2.4	0.2	0.429	NS
	After	14.9	2.1			

SD: Standard Deviation; MD: Mean Difference.

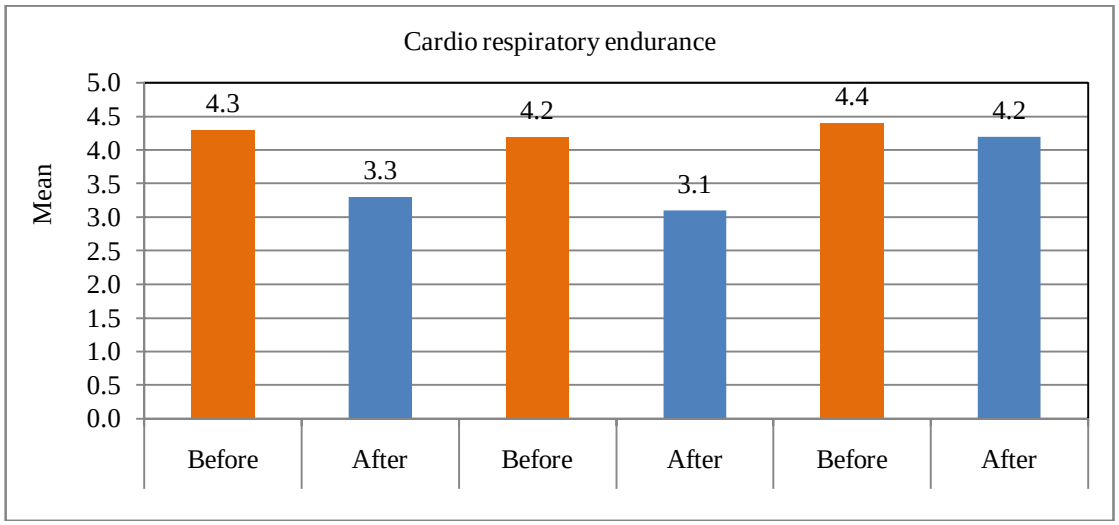

Figure-3
Graphical Representation on Pre-Test, Post Test of Cardiovascular Endurance of control Group and exp. Group before and after exercise

Table-3
Mean, Standard Deviation, MD, t-ratio and p- value for the Data on Cardiovascular Endurance of Pre and Post-tests of control group and Experimental Groups

Exercise	Groups	Mean	SD	MD	t' Value	P Value
Yoga Practitioners	Before	4.3	1.2	1	2.174	<0.05
	After	3.3	1.1			
Physical Exercise Practitioners	Before	4.2	1.3	1.1	2.136	<0.05
	After	3.1	1.2			
Non Practitioners	Before	4.4	1.2	0.2	0.627	NS
	After	4.2	1.1			

SD: Standard Deviation; MD: Mean Difference.

Speed: On the basis of the study results, it is concluded that the Yoga and Physical Exercise training can significantly lower the speed.

Agility: On the basis of the study results, it is concluded that the Yoga and Physical Exercise training can significantly lower the agility.

Cardio respiratory endurance: On the basis of the study results, it is concluded that the Yoga and Physical Exercise training can significantly lower the cardio respiratory endurance.

Hypotheses Testing: It is hypothesized that yogic exercise and physical exercise would significantly improve the selected motor ability components, physiological and psychological variables of college students.

On the basis of the study results, it is evident that there is significant ($P<0.05$) difference in the motor ability components, physiological and psychological variables as a function of yogic exercise and physical exercise training, hence, the hypothesis, which states that "It is hypothesized that yogic exercise and physical exercise would significantly improve the selected motor ability components, physiological and psychological variables of college students" is accepted.

It is hypothesized that there would be positive correlation of yogic and physical exercises, Emotional intelligence, personality and social maturity with aggressive behavior and anxiety behavior of college students.

The study results indicated that yogic and physical exercises have positive correlation with emotional intelligence, personality, social maturity and aggressive behavior as well as anxiety of college students, hence, the hypothesis, which states that "It is hypothesized that there would be positive correlation

of yogic and physical exercises, Emotional intelligence, personality and social maturity with aggressive behavior and anxiety behavior of college students" is accepted.

Conclusion

On the basis of the study results, it is evident that the importance of physical fitness cannot be ignored. Moreover, the results clearly indicate that the yoga and physical exercise have a significant positive impact on the health of humans. Interestingly, in today's society, which is moving towards a more sedentary lifestyle, there is a greater need than ever to increase the daily activity level to maintain both cardiovascular fitness and body weight.

Not only this but also the mental fitness has also become a major issue of concern. In view of the above, it is apt to conclude that regular yogic practice can help the people to achieve the mental peace necessary for leading the healthy life. In addition to above, it is also clear that regular physical exercise is also necessary to maintain the performance of lungs and heart to most efficiently burn off excess calories and keep the weight under control and also the exercise will improve muscle strength, increase joint flexibility and improve endurance. Thus, all in all it is concluded that the regular practice of yoga and physical exercises have positive impact on the human health.

Recommendations: i. The impact of socio-economic status of students on their physical fitness and personality traits as well as sports performance should be thoroughly investigated in future studies. ii. Studies focusing on physical fitness and performance of boys and girls participating in Indian and Foreign games should be carried out. iii. The relation between nutrient intake and the sports performance of the players from rural and urban areas should be investigated. iv. The suitability of the body frame of the student and his/her selection of sport should be evaluated along with consideration of knowledge of personality and general intelligence of the subjects for participation and excellence in different level tournaments. v. Similar studies should be accomplished at different places, such as on state and national level to get improve the data as well as knowledge repository. vi. More studies on similar lines should be carried out to improve the accuracy as well as reliability of the findings. vii. Role of academic pressures as well as pressure to perform in competition should be investigated in view of the current sport performance. viii. Role of yoga in betterment of the different sports should be studied in future investigations. ix. Correlational studies consisting Yogic practices and Coordinative abilities of the sportspersons should be carried out. x. Effect of Pranayama should be evaluated in view of the sports performance of college going students. xi. Studies pertaining to the effect of psychological traits on the physical performance should also be carried out.

References

1. Bed Getchell (1979). Physical Fitness A Way of Life. New York, John Wiley and sons, Inc. USA, 176, 8.

2. Ajmer Singh (2006). Essentials of Physical Education. Kalyani Publishers, New Delhi, 515.

3. Anbu and Maniazhagu (2012). Effect of circuit resistance training aerobic circuit resistance training on performance related fitness component of male football players. *International Journal of Physical education sports Management and Yogic sciences, Channai,* 2(2).

4. Brown Annie May (1997). The effect of supplemental 10 minutes Circuit training programme on physical fitness. Completed research in H.P.E.R. 09.

5. Chen Yan (2010). Effect of Power Fitness Yoga Exercise on Serum Lipids in Healthy Middle-Aged Women. *Journal of Shandong Institute of Physical Medicine and Sports,* 26(12), 51-53.