



Impact Of Yogic Exercises And Aerobic Exercises On Physiological And Psychological Variables Of University Payers

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ABSTRACT

The purpose of the present study was to find out the impact of yogic exercises and aerobic exercises on Physiological and Psychological variable of university players. To achieve this purpose 90 Athletes in various events of affiliated colleges of Andhra University in Visakhapatnam. Their age ranged from 17 to 26 years; the selected subjects were divided into three equal groups. Each group consists of 30 subjects, in which The Experimental Group-I underwent yogic exercises, The Experimental Group-II underwent aerobic exercises, and act as Group-III control group. The subjects underwent Six Weeks morning session training. The data were collected before and after the training, these experimental data were statically analyzed to find out the significant. Was statistically significant imprudent by using Anna's Group I and Group II underwent for the training for training peered of Six week. The data collected from the three groups. Emulate data were collected after the experimental period was collected data was a statistically significant improvement in using analysis of co variation and "F" ratio was found to be significant; Scheffe's test was used as a post-test to determine which of the paired means differed significantly. In all cases, the criteria for statistical significance were set at 0.05 level of confidence ($P < 0.05$).

Keywords: Yogic exercises and aerobic exercises an anxiety, athletes.

INTRODUCTION:

The yoga is the ultimate technique which produces a marvellous change in the life style. The criminal nature of the unsocial elements can be changed by yoga. The sentiment of dissatisfaction egotism, anger, greediness, attachment etc. are the root cause of crime, when a person being aware and conscious by yoga practice recognizes its basic nature and suffering gained by the ill statement then a change appears in his mind and he live a decent social life, which is full of softness, piousness, friendliness and happiness.

As the modern life is full of stress and tension, people are realizing the need of relaxation and mental calm. From ancient times the sages have developed various systems of yoga which is practiced properly give rest to your mind and body and refresh them. Yoga is universally benefiting all the peoples of all ages. The study is fascinating to those with the philosophical mind as is defined as the silencing of the mind's activities which leads to complete realization of the intrinsic nature of the Supreme Being. It is a practical holistic philosophy designed to bring about profound state of well-being is an integral subject. Which takes into consideration man as a whole? The word yoga is derived from 'Yuj' that means union of merger. The merger of soul with God and the experience of oneness with Him are meant by yoga. B.K.S. Iyengar states that, "Yoga is a timeless practice since over thousands of years dealing with physical mental and spiritual wellbeing of human society as whole." Yoga defines itself as a science, that is, as a practical, methodical, and systematic discipline or set of techniques that have the lofty goal of helping human beings to become aware of their deepest nature. The goal of seeking to experience this deepest potential is not part of a religious process, but an experiential science of self-study.

Practical science such as meditation is based on the concrete experience of those teachers and yogis who have previously used these techniques to experience the deepest self. Yoga does not contradict or interfere with any religion and may be practiced by everyone, whether they regard themselves as agnostics or members of a particular faith. Yoga harmonizes our growth through balance and it promotes the total development. The great sage Patanjali systematically presented the science of yoga in the form of 195 'Sutras' the aphorisms. The eight fold path of Patanjali consists of Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana and Samadhi. Of these Yama and Niyama are the do's and don'ts of essential for the development of an individual. They provide the values to the students and bring forth the hidden potentialities in them. Yoga exercises will promote inner health and harmony by providing proper exercise and rhythm to every part of the body machine. They also enable us to have complete control over both our bodily functions and mental activity, so that one can always maintain good health. Yogasanas form the best system of physical culture. Regular practice of asanas tones up the nervous system, endocrine glands, blood circulation, digestion, excretion and respiration. The body becomes supple, light and full of vigour. A sound mind dwells in a sound body. Therefore, the practice of asanas ensures mental health too.

Asana is the Sanskrit word for a physical posture. Expressed in general terms Asana denotes a specific position which can be held in a relaxed and comfortable manner for a long period of time. Asanas are beneficial for the muscles, joints, cardiovascular system, nervous system, and lymphatic system, as well as the mind, psyche, and chakras. They are psychosomatic exercises, which strengthen and balance the entire nervous system and harmonize and stabilize the practitioner's state of mind. The effects of these exercises are a sense of contentment, clarity of mind, relaxation, and a feeling of inner freedom and peace beginning and end of each Yoga class, as well as between the individual exercises. By developing the ability.

The system "Yoga in Daily Life" is designed in such a way that the body is gradually and systematically prepared, leading from simple preparatory exercises toward the more advanced and difficult Asanas. Periods of relaxation are included at the beginning to relax; the feeling for one's own body is deepening. Physical and mental relaxation is prerequisites for the correct performance of all yoga exercises and it is only in this way that the effects of the Asanas completely disclose.

Yogic postures tone up the body and the mind whereas physical exercise affects mainly the body. The caloric requirement in yogic asanas varies from 0.8 to 3 calories per minute while the caloric requirement of the physical exercise varies from 3 to 20 calories per minute. The main purpose of physical exercise is to increase the circulation of the blood and intake of oxygen. This can be done by yoga's simple movements of the spine and various joints of the body with deep breathing, but without violent movements and asanas, the various blood vessels are pulled and stretched and blood is equally distributed to every part of the body. Yoga posture and breathing exercises unlike physical exercise do not strain the cardiovascular system, and they improve one's physical fitness and endurance.

STATEMENT OF THE PROBLEM:

The purpose of the study was to find out the "Impact of yoga and aerobic exercises on physiological and psychological variables of athletes".

OBJECTIVE OF THE STUDY:

To examine and assess the impact of yoga training on the physiological and psychological development of athletes. To know and examine the impact of aerobic exercise training on the physiological and psychological development of athletes.

METHODOLOGY:

The procedure adopted in the present research work is related to the selection of subjects, selection of variables, training procedures, Experimental design, Selection of tests orientation of the subject, pilot study collection of data. Administration of training, administration of the tests and statistical technique involved in the study.

Selection of subjects:

The purpose of the study was to find out the impact of yoga and aerobic exercise on physiological and psychological variables of athlete". To achieve this purpose 90 athletes were selected in the age group ranging from 18 to 25 years studying in affiliated colleges of Andhra University in Visakhapatnam. Their age ranged from 17 to 26 years; the selected subjects were divided into three equal groups. Each group consists of 30 subjects, in which the Experimental Group-I underwent yogic exercises, The Experimental Group-II underwent aerobic exercises, and act as Group-III control group. The subjects underwent Six Weeks morning session training. The data were collected before and after the training, these experimental data were statically analyzed to find out the significant. Was statistically significant improvement by using Anna's Group I and Group II underwent for the training for training period of Six week. The data collected from the three groups. Emulate data were collected after the experimental period was collected data was a statistically significant improvement in using analysis of co variation and "F" ratio was found to be significant; Scheffe's test was used as a post-test to determine which of the paired means differed significantly.

Selection of the variables:

Asanas	Aerobic Exercises	Physiological	Psychological
Vrikshasana	Mambo cha cha	Blood Pressure	Anxiety
Trikonasana	Grapevine	Resting Pulse Rate	Stress
Padmasana	L- Step	Vital Capacity	Aggression
Vajrasana	V-Step		
Makarasana	Y-Step		
Dhanurasana	T-Step		
Halasana	A-Step		
Chakrasana			

Selection of the tests: The test items were selected for this study thorough consultation with experts , physical education professionals and also research supervisor. The selection tests and the criterion variable are presented in the following.

1. Sphygmomanometer – Blood pressure (2mm/Hg per second).
2. Radial Pulse rate – Resting pulse rate
3. Spirometer – Vital Capacity
4. Questionnaire developed – stress, anxiety and Aggression.

Table-1: Showing computation of analysis the mean , Standard Deviation and “t” Value of Pre and Post Test for yoga training and aerobic training of experimental groups on blood pressure, Resting pulse rate, Vital Capacity Performances.

Variable s	Test	E.G -1 (Yoga Training)	E.G-II (Aerobic Training)	C.G-III	Source of Variable s	Sum of squares	Df	Mean Square s	F-Ration	
Blood Pressure	Pre Test	Mean	118.601	117.15	119.45	BG	2.375	1	2.375	0.739
		SD	1.4265	1.663	1.4312	WG	57.825	18	3.212	
	Post Test	Mean	114.701	113.01	119.5	BG	46.374	1	46.374	125.969
		SD	1.78	1.7162	1.6701	WG	6.626	18	0.368	
Resting Pulse Rate	Pre Test	Mean	65.0501	66.1001	69.8503	BG	2.146	1	2.146	0.437
		SD	1.7614	1.8324	0.988	WG	88.404	18	4.911	
	Post Test	Mean	60.0001	62.8501	69.9001	BG	18.851	1	18.851	357.63
		SD	1.9194	2.183	1.0208	WG	0.949	18	0.053	
Vital Capacity	Pre Test	Mean	49.7501	50.5501	53.6502	BG	61.895	1	61.895	0.41
		SD	3.4776	6.0012	6.3521	WG	2715.905	18	150.885	
	Post Test	Mean	54.2612	61.2351	53.2651	BG	175.45	1	175.411	58.973
		SD	54.95	61.90001	53.2561	WG	53.539	18	2.965	

****The level of significance is 0.05. BG-Between Groups ,WG-Within Group, EG-Experimental Group ,C.G-Control Group.**

Table – 1 shows the mean, SD Values of pre test of E.G-1 , E.G-2 and C.G on blood pressure, Resting pulse rate, Vital Capacity Performances is observation that mean and SD score value of E.G -1, E.G-2 and C.G above table-1 show results respectively. The calculated F – ratio found to be 0.05*level of significant it can be non significant it can be concluded that the blood pressure, Resting pulse rate, Vital Capacity Performances difference among E.G-1 Subjects , E.G-2 Subjects and Control Group subjects.

Table-2: Showing computation of analysis the mean , Standard Deviation and “t” Value of Pre and Post Test for yoga training and aerobic training of experimental groups on Anxiety, Aggression and Stress Performances.

Variables	Test	E.G -1 (Yoga Training)	E.G-II (Aerobic Training)	C.G-III	Source of Variables	Sum of squares	Df	Mean Squares	F-Ration	
Anxiety	Pre Test	Mean	60.2001	56.3215	59.1523	BG	8.7891	1	8.7895	0.0081
		SD	5.62121	5.21451	4.4215	WG	1939.72	18	107.762	
	Post Test	Mean	55.35	49.5621	59.3275	BG	474.568	1	474.251	62.728
		SD	5.6241	7.4562	4.5216	WG	136.245	18	7.5624	
Aggression	Pre Test	Mean	90.3002	85.7002	91.5621	BG	3.3215	1	3.4512	0.0152
		SD	5.5213	5.5162	10.3512	WG	4526.835	18	254.652	
	Post Test	Mean	87.7521	82.6524	91.9652	BG	598.542	1	598.652	722.515
		SD	5.6325	7.5621	10.19952	WG	14.9195	18	0.8651	
Stress	Pre Test	Mean	72.1501	71.5502	74.8216	BG	4.4215	1	4.2152	0.0344
		SD	9.7915	11.5521	7.1524	WG	2314.36	18	128.574	
	Post Test	Mean	68.3521	66.4521	74.8512	BG	2161.824	1	2161.821	136.666

	Post Test	SD	11.347	12.4521	7.0506	WG	284.729	18	15.818	
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****The level of significance is 0.05. BG-Between Groups ,WG-Within Group, EG-Experimental Group , C.G-Control Group.**

Table – 2 shows the mean, SD Values of pre test of E.G-1 , E.G-2 and C.G on Anxiety, Aggression and Stress Performances is observation that mean and SD score value of E.G -1, E.G-2 and C.G above table-1 show results respectively. The calculated F – ratio found to be 0.05*level of significant it can be non significant it can be concluded that the Anxiety, Aggression and Stress Performances difference among E.G-1 Subjects , E.G-2 Subjects and Control Group subjects.

SUMMARY:

The research selected Blood pressure , Resting pulse rate , Vital Capacity for Physiological Variable and Anxiety stress aggression for psychological Variables. Twelve weeks of yoga and aerobic exercises training were given to 90 athlete subjects before training the researcher conducted pre test performance on physiological and psychological variables. The performance of the pre test was recorded. After the 12 weeks of yoga and aerobic exercises training the post test performance was recorded on physical and psychological performance. The result of the post test performance indicates significant improvement.

CONCLUSIONS:

Based on the findings the following conclusions were drawn from the present study. Six weeks of yoga has shown significant improvement on physiological and psychological performance variables of the subjects. Aerobic exercises training has shown significant improvement on physiological and psychological performance variables of the subjects. Yoga and Aerobic Exercises training has show significant improvement on physiological and psychological performance variables of the subjects.

REFERENCES:

1. Rassier, D. E., & Herzog, W. (2005). Force enhancement and relaxation rates after a stretch-activated muscle fibres. *Proceedings of the Royal Society B: Biological Sciences*, 272: 475-480.
2. Kao, S., Hsieh, M., & Lee, P. (2017). Coaching competency and trust in coach in sports teams. *International Journal of Sports Science and Coaching* (12) 3, 319-327.
3. Pybus, R. (n.d.). Cricket mental training for optimal performance. Cricketlab. Retrieved from <http://www.crick etlab. co/ crick et- mental- train ing. Html>.
4. Clough, P.J., & Strycharczyk, D. (2012). Developing Mental Toughness: Improving.
5. Crust, L., & Swann, C. (2013). The Relationship between Mental Toughness and Dispositional.
6. Hu, Li-tze, Bentler, Peter, M. (1999). Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria versus New Alternatives. *Structural Equation Modeling*, 6:1-55.
7. Kubendran. C. (2017). Effect of Sand Training and Yogic Practices on Breath Holding Time among College Men Football Players. *International Journal of Recent Research and Applied Studies*, 4, 1(12), 47 - 49.
8. Psychology: Mapping Well-Being Orientations. *Canadian Psychology*, 56, 311-321. <http://dx.doi.org/10.1037/cap0000033>.
9. Lee, M. J., Whitehead, J., & Ntoumanis, N. (2007). Development of the attitudes to moral decision-making in youth sport questionnaire (AMDYSQ). *Psychology of Sport and Exercise*, 8 (3), 369-392.
10. Chen, M.A., & Cheesman, D.J. (2013). Mental Toughness of Mixed Martial Arts Athletes at Different Levels of Competition. *Perceptual and Motor Skills*, 116, 905-917. <http://dx.doi.org/10.2466/29.30.PMS.116.3.905-917>.