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Isolated and combined effect of yogasana and burpee exercise on vital capacity among college men students

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Abstract---The main purpose of the study was to find out the Impact of varied training package on fitness parameters of college students. 60 subjects were selected for the study. The subjects were selected from the Faculty of Management, Alagappa University. The subject's age range was taken from 18 to 24 years. The pre and post test random sampling would be used to select the subject. Training package Group-I underwent yogasana, Training package Group-II underwent burpee exercises, Training package Group - III combined group underwent yogasanas and burpee exercises. Each group consisting of 20 subjects. The duration of the training period was 12 weeks. The subjects were trained 6 days a week, per day 1- hour training was given. In package Group I-15 asana was given in training. Training Package Group II-10 burpees was given in training. Training package group III combined group the subjects was joined with training package group I, 3 alternative days and training package group II, 3 alternative days, The Analysis of Co-variance (ANCOVA) was applied to find out the significant improvement on pre and post test data, if the result were significant the Schiff's post hoc test was used to find out the paired mean differences. In all the cases the 0.05 level of confidence was fixed. The Training Package Group- III Combined Group showed superior performance than the Training Package Group- I and Training Package Group- II on vital capacity.

Keywords---Training Package, yogasana, burpee exercises, Vital Capacity.

Introduction

The 21st century has seen a recorded advancement in science and innovation that incorporates space, protection, nuclear energy, PCs, Internet administration, and so on through the development of the internet we can gather the data from anyplace on the planet. Because of this high level logical innovative development, the developments of the human body have been restricted. The pressure and serious inclination have expanded. Man experienced pressure, hypo/hyper motor activity and psychosomatic disorder, difficult to get good food sources. Presently man ought not to keep away from huge proactive tasks of any kind. Everybody needs a decent actual shape and they are the decisive objectives of all the individuals who need the delight of life.

Yoga is an antiquated physical and otherworldly discipline and part of theory that has its starting point in India which practically speaking over 5000 years prior. Yoga is drilled by yogis. It was passed down to the understudy through the yogis and today a wide range of schools of yoga created as it spread. One of the most established texts by and large acted to have been composed by Patanjali, s "Yogasutras" – expounded on 2000 to 2500 years prior is the standards reasoning and practices of Yoga.

In the new years it has become famous as a structure practice dependent on various postures of all the human body that advance control of brain and body and upgrade prosperity. There are various kinds of yoga and many disciplines inside the training. Yoga isn't a religion, it is a method of living, those points towards- a sound brain in a solid body.

The terms squat push and Burpee exercise frequently are utilized, they don't refer to a similar exercise. They are varieties of a similar exercise. These two developments consolidate aerobic training and strength training into one grouping, working your cardiovascular system, legs and upper body. The Burpee exercise is a further developed development with a polymeric segment that the squat push needs. The squat push is a novice practice that you can use as a venturing stone to the Burpee exercise work out.

Hoping to work all our significant muscle bunches in a single executioner combo move, Burpee exercises are the best approach. "Burpee exercises are genuinely one of the most useful full-body works out," Jones says. They are a viable utilization of your time dependent on the number of muscle bunches they work. Don't have the opportunity to do isolate sets of squats and pushups, why not to do additionally; they don't need any hardware to perform, so they are incredible for at-home workouts or travelling. Truth be told, they are perhaps the most difficult exercise out there. But the extraordinary compound move likewise works different muscle bunches immediately, making them profoundly compelling, clarifies Caitlin Jones, ensured certified fitness coach in New York City.

Methodology

The main purpose of the study was to find out the Impact of varied training package on fitness parameters of college students. Based on the interest in the

field of sports 100 college men was selected as a population for the study. The treatment was introduced to the population. After a week based on their involvement the 60 subjects were selected for the study. The subjects were selected from the Faculty of Management, Alagappa University. The subject's age range was taken from 18 to 24 years.

The pre and post-test random sampling would be used to select the subject for the Impact of varied training package on fitness parameters of college students. The selected subjects were divided into four equal groups in number and the treatment was given, such as Training package Group - I underwent yogasanas, Training package Group - II underwent burpee exercises and Training package Group - III combined group underwent yogasanas and burpee exercises was not taken part in any form of training other than their regular schedule. Each group consisting of 20 subjects. The duration of the training period was 12 weeks. The subjects were trained 6 days a week, per day 1- hour training was given.

Training schedule

Training Package Group I (yogasana): The asanas was given to the subjects after the loosening, Prasaritapadaattanasana, Uttanasana, Virabhadrasana, Parivrttatrikonasana, Gomukhasana, Janu, sirasana, Eka pada rajakapotasana, Urdhavadhanurasana, Eka pada setubandhasaa, Karnapidasana, Noukasana, Chaturanga, sarpasana, Parsva dhaurasana. The 12 weeks training period first 4 weeks final position locked 10 seconds 2 sets rest between the sets was 1 minute, next 4 weeks final position locked 20 seconds 2 sets rest between the sets was 45 seconds, last 4 final position locked 30 seconds 2 sets rest between the sets was 30 seconds.

Training Package Group II (Burpee Exercises): The exercises was given to the subjects after the worming up, Modified burpee, Knee push-up burpee, Basic burpee, Burpee broad jump, CrossFit burpee, Eight-count push up or Double burpee, Hindu push up burpee, One-armed burpee, One leg burpee, Side burpee, Tuck-jump burpee. The 12 weeks training period first 4 weeks 5 repetitions 2 sets, next 4 weeks 8 repetitions 2 sets, last 4 weeks 10 repetitions 2 sets, rest between the sets was 2 minutes.

Training package group III combined group (yogasana and burpee exercises): the subjects was joined with training package group I, 3 alternative days (Monday, Wednesday, Friday) and training package group II, 3 alternative days (Tuesday, Thursday, Saturday).

Statistical Analysis

Analysis of Co-variance (ANCOVA) was applied to find out the significant improvement on pre and post test data, if the result were significant the Schiff's post hoc test was used to find out the paired mean differences. In all the cases the 0.05 level of confidence was fixed.

Result and Discussion

Result of Vital Capacity

The analysis of covariance on vital capacity of the pre and post test scores of Group I, Group II and Group III have been analyzed and presented in Table – 1.

Table 1
Analysis of covariance of experimental groups on vital capacity

Test	Yogasanas Group I	Burpee Group II	Combined Group III	SOV	SS	Df	MS	'F'
Pre Test	2.71 ± .102	2.69 ± 0.110	2.65 ± 0.102	B	0.041	2	0.021	1.82
				W	0.647	57	0.011	
Post Test	3.25 ± 0.135	3.18 ± 0.013	3.20 ± 0.133	B	0.051	2	0.025	1.44
				W	1.003	57	0.018	
Adjusted post Test	3.22	3.17	3.24	B	0.045	2	0.022	5.06*
				W	0.248	56	0.004	

*Significant at 0 .05 level of confidence

The required table value of 2 and 57 and 2 and 56 are 3.16 and 3.15 respectively. The Table 1 shows that the pre test mean values on vital capacity of Group I, Group II and Group III are 2.71, 2.69 and 2.65 respectively. The obtained 'F' ratio 1.82 for pre-test score was less than the table value 3.16 for df 2 and 57 required for significance at .05 level of confidence on vital capacity.

The post-test mean values on vital capacity of Group I, Group II and Group III are 3.25, 3.18 and 3.20 respectively. The obtained 'F' ratio value 1.44 for post-test score was less than the table value 3.16 for df 2 and 57 required for significance at .05 level of confidence on vital capacity.

The adjusted post-test mean values on vital capacity of Group I, Group II and Group III are 3.22, 3.17 and 3.24 respectively. The obtained 'F' ratio 5.06 for adjusted post-test score was greater than the table value 3.15 for df 2 and 56 required for significance at .05 level of confidence on vital capacity.

The result of the study indicated that, there was a significant difference among the adjusted post-test means of Group I, Group II and Group III on vital capacity. Since three groups were compared, whenever the obtained 'F' ratio for adjusted post-test was found to be significant, the scheffe's post hoc test was used to find out the paired mean difference and was presented in table 2.

Table – 2
Scheffe's post hoc test for the difference between paired mean of
experimental groups on vital capacity

Adjusted Post Test Mean			Mean difference	Confidence Interval
Yogasana Group I	Burpee Group II	Combined Group III		
3.22	3.17	-	0.05*	0.05
3.22	-	3.24	0.02	
-	3.17	3.24	0.07*	

*Significant at .05 level of confidence

The table 2 shows that the adjusted post-test mean difference of vital capacity between Group I, Group II and Group III are 0.05, 0.02 and 0.07 respectively. The comparison results reveals that, a significant difference was existing between Group I, Group II and Group III at 0.05 level of confidence and insignificant difference was observed between Group I and Group III on vital capacity. Hence it was concluded that, Group I and Group III may improve vital capacity of college men. The adjusted post test mean values of Group I, Group II and Group III on vital capacity were graphically represented in Figure – I.

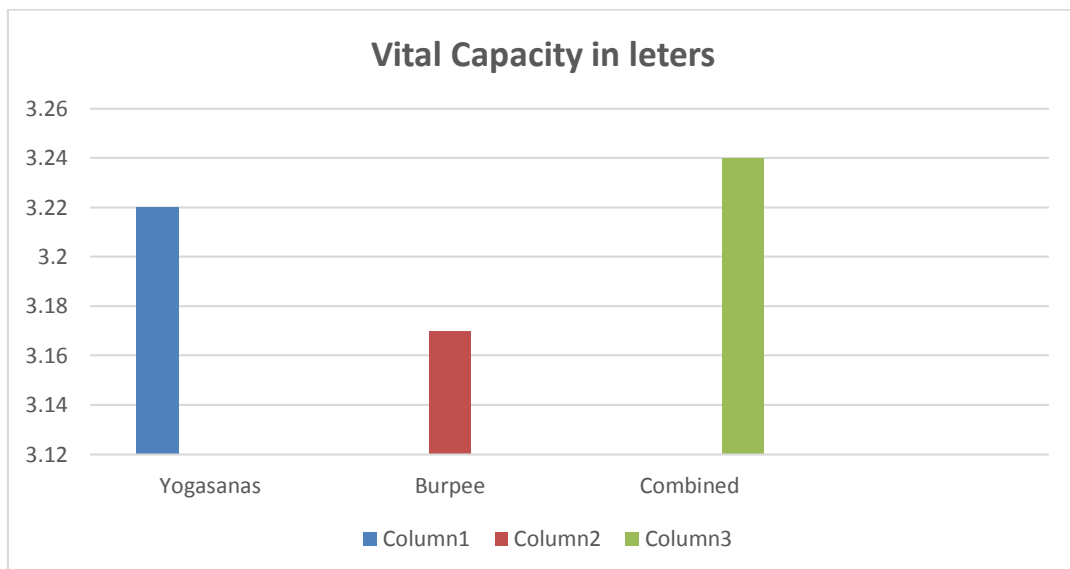


Figure – I. The Adjusted Post Test Mean Values of Yogasanas, Burpee exercises
and Combined Groups on Vital Capacity

Table – 3
Dependent 't' and percentage of improvement on vital capacity of
experimental groups

Group	Test	Mean	SD	R	Df	't'	Magnitude of improvement (%)
Yogasanas	Pre	2.71	0.114	0.89	19	37.99*	19.93
	Post	3.25	0.135				
Burpee	Pre	2.69	0.10	0.85	19	31.89*	18.22
	Post	3.18	0.10				
Combined	Pre	2.65	0.10	0.86	19	35.99*	20.75
	Post	3.20	0.13				

*Significant at 0.05 level of confidence.

(The required table value for significance at 0.05 level of confidence is 2.09)

The result of the 't' shows significant difference between paired means of pre and post test of Group I, Group II and Group III on vital capacity are 37.99, 31.89 and 35.99 respectively. The percentage of increase on vital capacity are 19.79, 18.22 and 20.75 for Group I, Group II and Group III respectively. From the results it was clear that all the three groups are significantly improved the vital capacity of college men from their base line data. However among the groups, Group III in best method to improve vital capacity of college men. Hence it was concluded that, Group III is most effective method to improve vital capacity.

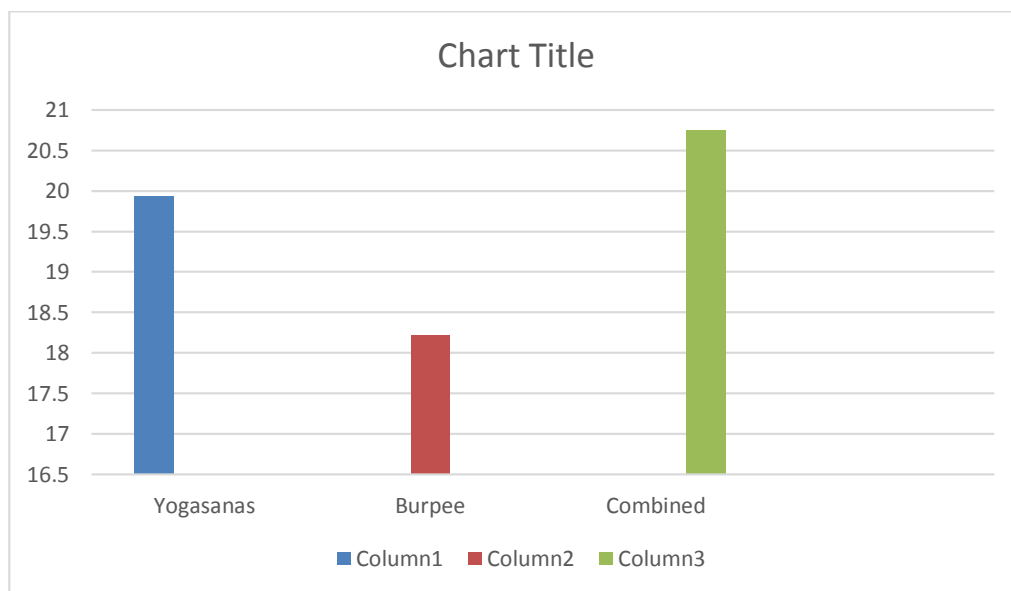


Figure II. shows the % of improvement of yogasana, pranayama and combined groups on vital capacity.

Conclusions

From the analysis of the data the following conclusion are drawn.

- 1) There were significant difference among three Training Package Group- I Yogasanas, Training Package Group- II Burpee Exercises and Training

Package Group- III Combined Group Yogasanas and Burpee Exercises on fitness parameters of vital capacity.

- 2) The training Package Group- III Combined Group Yogasana and Burpee Exercises showed greater improvement than the Training Package Group- I Yogasana and Training Package Group- II Burpee Exercises on Vital Capacity.
- 3) Through based on the result, it was concluded that the Combined Yogasanas and Burpee Exercises would provide better means and methods for developing the vital capacity that are needed for human beings for their day to day life.

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