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IMPACT OF SURYANAMASKAR ON DIURNAL RHYTHMIC VARIATION OF EXISTING LIFESTYLE PATTERN OF MIDDLE AGED SEDENTARY MEN

Dr A.G. VENKATESAN[1], P.RAMESH [2].
1. Assistant Professor, Department Of Physical Education and Sports Science
Annamalai University, Annamalai Nagar
2. Research Scholar, Dept of Physical Education and Sports Sciences,
ramesh.p0479@gmail.com,agvenkatlecturer@Ymail.Com
Mobile No: +919025129586.

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ABSTRACT

The purpose of the study is to find out the impact of suryanamaskar on diurnal rhythmic variation of existing lifestyle pattern of middle aged sedentary men. To achieve the purpose of the study, 30 middle aged sedentary men aged 35 to 50 years were selected as subjects at random. The selected subjects working as administrative sections in various departments in Chennai, Tamilnadu, India. The selected subjects were divided into two groups at random such as experimental and control group. Suryanamaskar was administered to group I (n = 15) and group II (n = 15) served as a control group. Experimental groups were subjected to a training program for 12 weeks whereas; the control group did not do any specific training program apart from their daily routine. Test was administered for bio-motor variables namely flexibility and strength endurance using standardized tests namely sit and reach test and bent knee sit-ups at before and after 12 weeks training program and the data was collected and analyzed statistically by using Analysis of covariance (ANCOVA) to find out the significant difference if any between the groups. The level of confidence which was fixed .05 levels. The result shows that the experimental group had achieved significant improvement on suryanamaskar when compared to control group. It was also observed that the twelve weeks of suryanamaskar training program have significantly improvement on flexibility and strength endurance of middle aged sedentary men due to suryanamaskar.

KEYWORDS: Suryanamaskar, Flexibility, Strength endurance, Sit and reach test and Bent knee sit-ups.

INTRODUCTION

Suryanamaskar or sun salutation, a traditional Indian yogic practice, renders the benefits of stretching, static, and dynamic exercise. Each round of SN practice involves practicing 12 postures in succession with forward and backward bending along with deep exhalation and inhalation respectively to the maximum possible extent. Many people practice several rounds of suryanamaskar for their regular physical fitness program. The energy cost and other cardio respiratory responses during the practice of suryanamaskar. The compared physiological responses of performing at suryanamaskar two different in the study. Compared differential effects of 6 months of slow and fast suryanamaskar training on cardio respiratory parameters and muscle endurance in school children.

They observed that effects of fast suryanamaskar training on physiological variables were akin to the effects produced by other forms of aerobic exercise training, whereas slow suryanamaskar training are similar to those of yoga training with reduction in cardiovascular parameters toward lower normal values. The yoga practice incorporating suryanamaskar for more than 10 min may constitute some portion of sufficient intense physical activity and can improve cardio respiratory fitness in unfit or sedentary individuals. Observed that regular suryanamaskar practice improved cardiopulmonary efficiency in healthy adolescents and was beneficial for both males and females. Reported an increase of systolic blood pressure, peak expiratory flow rate, forced vital capacity, and reduction of respiratory rate, heart rate (HR), and diastolic blood pressure in 115 school children aged 10-14 years after practice of 30-40 min of daily suryanamaskar for 45 days.

METHODOLOGY

The purpose of the study is to find out the impact of suryanamaskar on diurnal rhythmic variation of existing lifestyle pattern of middle aged sedentary men. To achieve the purpose of the study, 30 middle aged sedentary men aged 35 to 50 years were selected as subjects at random. The selected subjects working as administrative sections in various departments in Chennai, Tamilnadu, India. The selected subjects were divided into two groups at random such as experimental and control group. Suryanamaskar was administered to group I (n = 15) and group II (n = 15) served as a control group. Experimental groups were subjected to a training program for 12 weeks whereas; the control group did not do any specific training program apart from their daily routine. Test was administered for bio-motor variables namely flexibility and strength endurance using standardized tests namely sit and reach test and bent knee sit-ups at before and after 12 weeks training program and the data was collected and analyzed statistically by using Analysis of covariance (ANCOVA) to find out the significant difference if any between the groups. The level of confidence which was fixed 0.05 levels.

TRAINING PROGRAMME

SURYANAMASKAR TRAINING PROGRAMME TABLE-I EARLY MORNING 5:30 to 6:30 AM

WEEKS	SETS	ROUNDS/YOGA POSE	DURATION/UNIT	RECOVERY
2 weeks	4x6	24/288	25 min	Each sets 30 seconds
3-4 weeks	4x8	32/384	30 min	Each sets 40 seconds
5-6 weeks	4x10	40/480	35 min	Each sets 50 seconds
7-8 weeks	4x12	48/576	40 min	Each sets 60 seconds
9-10 weeks	4x14	56/672	45 min	Each sets 70 seconds
11-12 weeks	4x16	64/768	50 min	Each sets 80 seconds

During the training period, the suryanamaskar group (Group I) underwent suryanamaskar practice early morning for twelve weeks (5:30 to 6:30 AM). Every day the workout lasted for 45 minutes to 1 hour approximately including warming up and warming down periods. Group II acted as control who did not participate in any special activity and specific training throughout the training period. The analysis of covariance on selected bio-motor variables of suryanamaskar and control groups have been analyzed and presented below.

RESULTS AND DISCUSSIONS

Table – II

Analysis of covariance of the data on flexibility of pre and post tests scores of Suryanamaskar and control group

Mean	Suryanamaskar	Control	SOV	SS	df	M.sq	'F' ratio
Pre-test mean	12.93	12.80	B	0.13	1	0.13	0.28
			W	13.33	28	0.48	
Post-test mean	16.33	12.93	B	86.70	1	86.70	24.53*
			W	98.97	28	3.53	
Adjusted post-test mean	16.28	12.98	B	80.80	1	80.80	477.87*
			W	4.57	27	0.17	

*Significant at .05 level of confidence. (The table value for significance at .05 level of Confidence with df 1 and 28, 1 and 27 wear 4.20 and 4.215 respectively). The adjusted post test means of suryanamaskar group and control group are 16.28 and 12.98 respectively on flexibility. The obtained "F" ratio of 477.87 for adjusted post-test means is more than the table value of 4.215 for df 1 and 27 required for significance at .05 level of confidence on flexibility.

Figure I

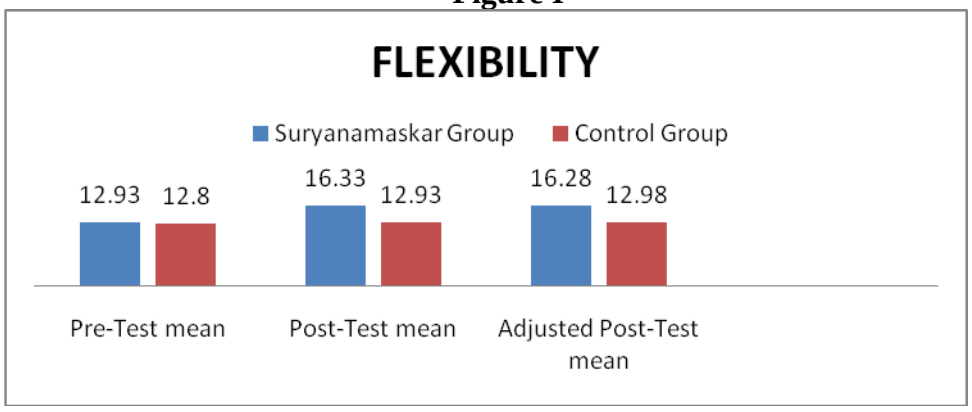


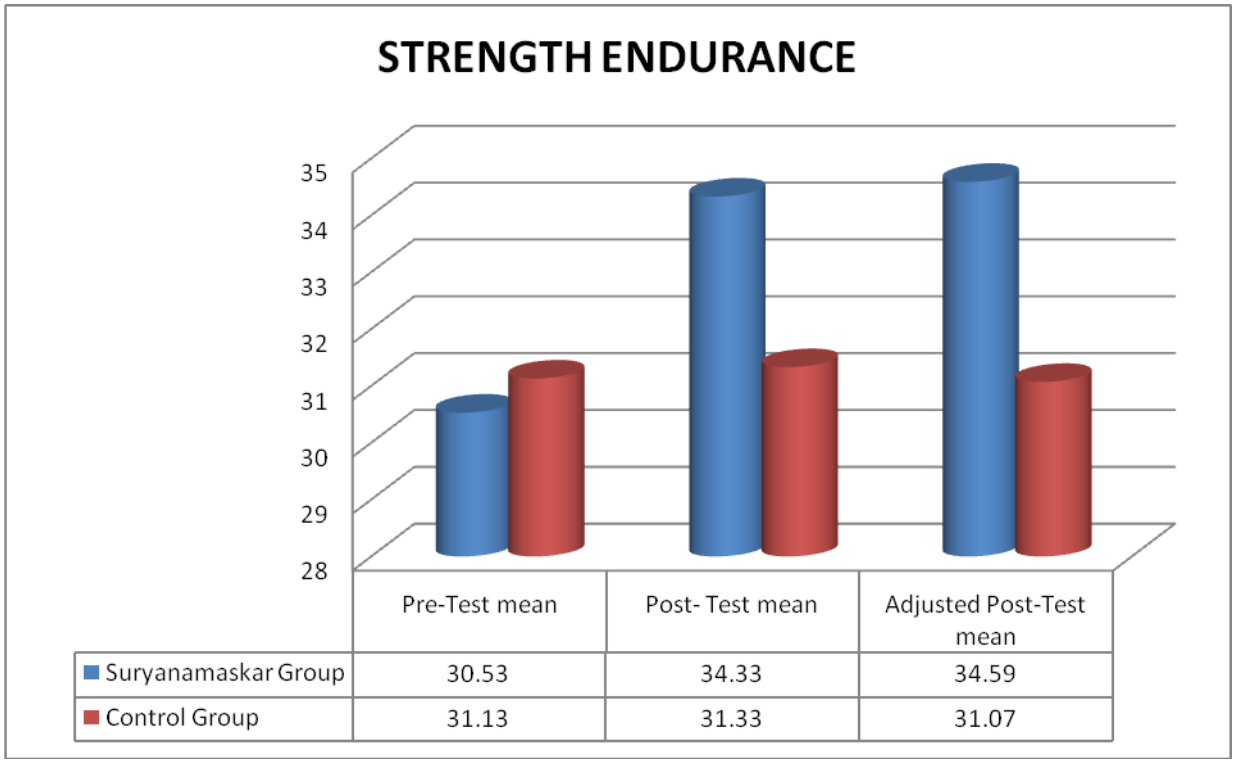
Table – III

Analysis of covariance of the data on strength endurance of pre and post tests scores of Suryanamaskar and control group

Mean	Suryanamaskar	Control	SOV	SS	df	M.sq	'F' ratio
Pre-test mean	30.53	31.13	B	2.70	1	2.70	2.57
			W	29.47	28	1.05	
Post-test mean	34.33	31.33	B	67.50	1	67.50	19.65*
			W	96.17	28	3.43	
Adjusted post-test mean	34.59	31.07	B	85.25	1	85.25	364.80*
			W	6.31	27	0.23	

*Significant at .05 level of confidence. (The table value for significance at .05 level of Confidence with df 1 and 28, 1 and 27 wear 4.20 and 4.215 respectively). The adjusted post test means of suryanamaskar group and control group are 34.59 and 31.07 respectively on strength endurance. The obtained "F" ratio of 364.80 for adjusted post-test means is more than the table value of 4.215 for df 1 and 27 required for significance at .05 level of confidence on strength endurance .

Figure II



CONCLUSION

The result shows that the experimental group had achieved significant improvement on suryanamaskar when compared to control group. It was also observed that the twelve weeks of suryanamaskar training program have significantly improvement on flexibility and strength endurance of middle aged sedentary men due to suryanamaskar.

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