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Functional response to the purpose of silambam practice after yogic practice

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Abstract

Background: Martial art- yoga dynamic are the systematic sequenced designs of biomechanical movements synchronized with breathing techniques that maximize circulation and energies the whole body system. The study was designed to investigate the influence of silambam practice after yogic practice on functional variables of school boys.

Methods: To achieve the purpose of the study 30 school boys were selected Sri Sowdeshwari Vidyalaya Higher Secondary .School, Coimbatore. Their aged of the subject ranged from 11 to 14 years. Selected subjects was randomly assigned to two equal groups (n=15), group I underwent silambam practice after yogic practice (SPAYP) and group II acted as control group (CG). The silambam practice after yogic practice was given to the experimental group for 6days per week for the period of 12 weeks. The control group did not practice in any training except their routine work. The following variables were measured with standard test items: Breath Holding Time (nose clip) and Resting Pulse rate (bio monitor). Pre and post test was conducted on separate days with warm up.

Result: The data was analyzed by applying dependent 't test. The level of significance was set at 0.05. The Silambam Practice after yogic practices had positive impact on resting heart rate and breath holding time among school boys. The result of the present study heart rate and breath holding time speculated significant improvement due to the silambam practice after yogic practice of school boys.

Conclusion: A school-based intervention focused on increasing active commuting to school was associated with increases in rates of Silambam after yogic practice to school among boys, However, the school-based intervention avoided increases in rates of passive commuting in the experimental group, which were significantly increased the control group.

Keywords: breath holding time, resting pulse rate, silambam after yogic practice

Introduction

Background

Martial Arts-Yoga includes sitting postures, standing meditations and more advanced hand positions or mudras to circulate energy through the whole system and the energy bodies. Alchemized energy results from the mixture of divine light with the inner fires or kundalini. The circulation of power and energy-especially the alchemized circulation – flows more efficiently when practicing a standing posture because it involves the lower centers, including the legs. Martial Arts-Yoga dynamic are the systematic, sequenced designs of biomechanical movements synchronized with breathing techniques that maximize circulation and energies the whole body system. The result is tremendously powerful than normal martial arts or yoga alone. It's like combining the best Japanese martial arts style with the best of Tibetan, Nepalese and Indian yoga systems. Martial Arts-Yoga is divided into seven levels that integrate the development of greater physical acumen along with the development of life skills, higher virtues and values. All the processes and organs like heart, brain, digestive organs, endocrine glands in the body have rhythms. Also the breathing has specific rhythms. Pranayama is Rhythmic breathing, bringing the breath in natural rhythm by controlling the process of inhalation, exhalation and retention. In process of breathing, one uses diaphragm, intercostal muscles in the chest. The diaphragmatic breathing is called vertical breathing and is considered a more efficient way to inhale air than inhaling while expanding the chest which is called horizontal breathing. In pranayama, one should utilize the diaphragm efficiently to get more oxygen without making more efforts. The diaphragm is attached to the organs like heart

and lings, also the liver, spleen, pancreas and stomach from the bottom side. Efficient movement of the diaphragm makes the functioning of these organs more efficient. Silambam is a mainly a form of stick or walking staff fighting. The length of the staff is roughly 1.68 meters (five and a half feet). Size of the staff is related to the height of the silambam player. It should just touch the forehead about three fingers from the head, although different lengths were used in different situations. The 3 feet stick called "sedikutchi" can be carried covertly. Separate practice is needed for staves of different lengths. The usual stance includes holding the staff at one end, right hand close to the back, left hand about 40 centimeters (16 inches) away. This position allows a wide array of stick-and body movements, including complex attacks and blocks. Unarmed silambam utilizes several routines based on the movements of animals, primarily snake and eagle forms. (Sudhakar 2015).

Variable	SPAIAG	CG
Age (Y)	14	13
Height (cm)	145.5	142.8
Weight (kg)	53.4	50.5

2. Methods

2.1 Participants

A total of 30 school boys aged 11 to 14 years were invited to participate in the study. From these, 30 school boys sample due to having valid data on commuting to school. Participants were recruited schools in the provinces of Sri Sowdesh. wari Vidhyalaya Hr. Sec. School, to participate in an intervention

to increase silambam after yogic practice. School Boys with valid data on commuting to school at baseline and follow-up, sex, age and distance from home to school were included in the final analysis (n = 15; 50.8% of the invited sample). The subjects were randomly assigned in to two equal groups namely, silambam practice after yoga practice group (SPAYP) (n=15) and Control group (CG) (n=15). The respective training was given to the experimental group the 3 days per weeks (alternate days) for the training period of eight weeks. The control group was not given any sort of training except their routine.

2.2 Design

The evaluated physiological parameters were Breath holding time was assessed by nose clip and the unit of measurement was in seconds, resting pulse rate were assessed by the bio monitor unit of measurement was in beats/min. The parameters were measured at baseline and after 10 weeks of silambam practice after yoga practice were examined. The intensity was increased once in two weeks based on the variation of the exercises.

2.3 Training Programme

The training programme was lasted for 60 minutes for session in a day, 6 days in a week for a period of 12 weeks duration. These 60 minutes included warm up for 10 minutes, 25 minutes silambam practice after 25 minutes yoga practice and warm down. The equivalent in silambam practice after yoga practice is the length of the time each action in total 6 day per weeks. (Monday to Saturday)

Table 1: Computation of 'T' ratio on selected physiological parameters of school boys on experimental group (Scores in beat/min/seconds)

Group	Test	Mean	Std. Deviation	T ratio	
Breath Holding Time	Experimental Group	Pre test	30.46	2.503	12.29*
		Post test	34.60	2.063	
	Control Group	Pre test	31.73	3.36	1.16
		Post test	31.82	3.27	

*significant level 0.05 level (degree of freedom 2.14, 1 and 14)

Table 1 reveals the computation of mean, standard deviation and 'T' ratio on Breath holding time of experimental. The obtained 'T' ratio on breath holding time were 12.29 respectively. The required table value was 2.14 for the degrees of freedom 1 and 14 at the 0.05 level of significance.

Since the experimental group 'T' values were greater than the table value of 2.14, it was found to be statistically significant. The control group 'T' value is less then table value of 2.14 it was found to be statistically insignificant.

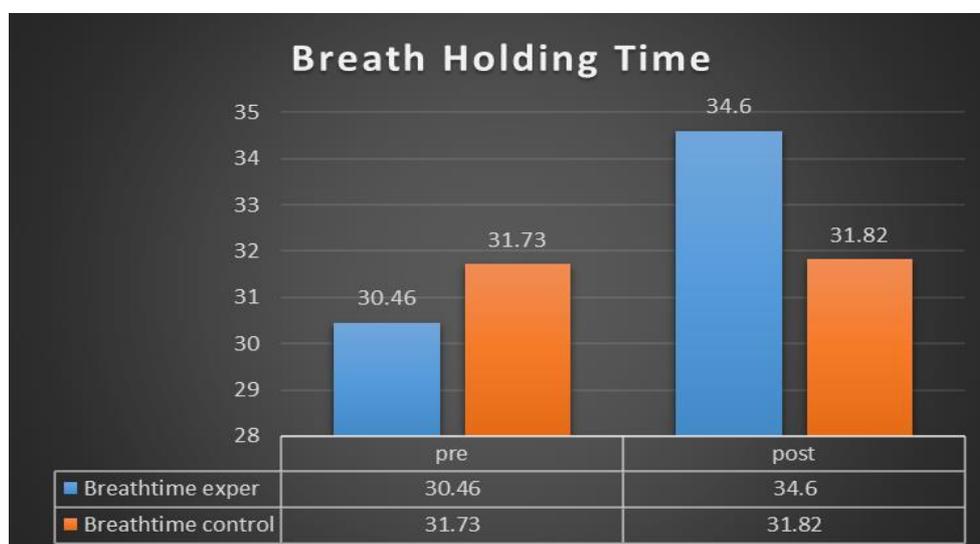


Fig 1: Bar diagram showing the mean value on breath holding time of school boys on experimental group and control group

Table 2: Computation of 'T' ratio on selected physiological parameters of school boys on control group (Scores in beat/min/seconds)

Group	Test	Mean	Std. Deviation	T ratio
Resting Pulse rate	Experimental Group	Pre test	71.80	1.47
		Post test	69.73	1.22
	Control Group	Pre test	72.26	1.48
		Post test	72.40	1.29

*significant level 0.05 level (degree of freedom 2.14, 1 and 14)

Table 2 reveals the computation of mean, standard deviation and 'T' ratio on Resting pulse rate of experimental. The obtained 'T' ratio on breath holding time were 3.66 respectively. The required table value was 2.14 for the degrees of freedom 1 and 14 at the 0.05 level of significance.

Since the experimental group 'T' values were greater than the table value of 2.14, it was found to be statistically significant. The control group 'T' value is less than table value of 2.14 it was found to be statistically insignificant.

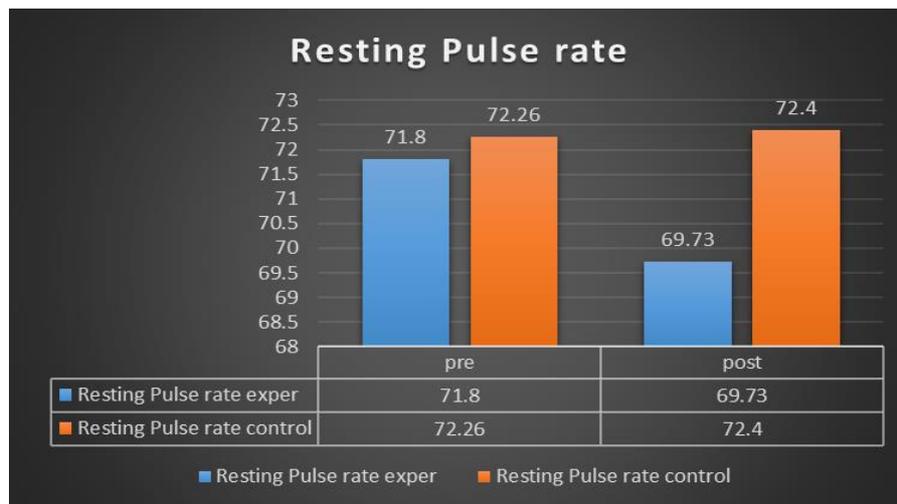


Fig 2: Bar diagram showing the mean value on resting pulse rate of school boys on experimental group and control group

3. Discussion and Findings

Human beings provide natural processes such as rotation, sitting, crawling, standing, running, jumping from the birth with the natural development of the person does not spontaneously reach the maximal point without a physical activity. The present study experimented the influence of ten weeks silambam practice after yoga practice on the selected parameters of the school boys. The results of this study indicated that silambam practice after yoga practice is more efficient to bring out desirable changes over the physiological variables of the school boys. Researchers have widened their interest to consider the breath holding time and resting pulse rate beginning from the way a children approaches the silambam after yogic practice. like yoga and silambam is probably the new found chic workout among the youths. Though initially chose silambam simply as a hobby to developing liking to it. Also, the martial arts helps maintain health and fitness part from making feel bold and equipped. Physiological variables likes to stick rotation and fastest moving do the long period of swinging and yoga was very effective in breathing internal parts of the lungs. In that denotes of breathing capacity were should be presence of silambam after yoga will be improvement. According to the results, the post-test values of the experimental group participants were significantly higher than the control group participants. When the pre-test and post-test breath holding time and resting pulse rate scores between the experimental and control groups were examined, there was a significant difference only in posteromedial and posterior directions ($p < 0.05$). Sudhakar *et al.*, (2015) conducted the study of silambam and karate training with yogic practices on physical physiological and psychological variables of collegiate male

students. Selvam *et al.*, (2016) [7] and they found that twenty four weeks there was significant improved in, Speed, Flexibility among female sprinters due to the influence of silambam practice and yogic practices. Bobby, G. (2018) [9] determined the effect of yogic practices on selected physiological variables among obese school boys. Saravanan *et al.*, (2016) [4] explained the Yogic and Mallakhamb Practices on Selected Physical and Performance Variables among Kabaddi Players. According to these results; it can be said that regular, structured and planned silambam after yogic practice for 10 weeks of school boys who have a positive effect on improving their Physiological changes.

4. Conclusions

From the results of the study and discussion the following conclusions were drawn.

Findings from the current study suggest that school boys who are more competent in Silambam after yoga practice spend more time engaged in physiological, in particular during time periods of the day that represent key physical activity opportunities for school boys. Physiological competency appears to be a better predictor of children's Silambam after yogic practice during school-based physical activity opportunities than breathing competency. This suggests that improving movement skill competency, particularly physiological variables are breath holding time and resting pulse rate among children is a potential avenue for promoting children's Silambam after yogic practice throughout the day. Findings from the current study substantially contribute to the understanding of silambam practice after yogic practices in children and will assist in evidence-based intervention design to increase Breathing capacity.

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