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Effect of Yogasana practices on vo^2 max among school girls

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Abstract
The purpose of the present study was to investigate the effect of yogasana practice on VO^2 max among school Girls. To achieve the purpose of the study thirty school Girls students were selected from school affiliated to Alagappa Model Hr.Sec.School, during the year of 2016-17. The subject's age ranges from 14 to 18 years. The selected students were divided into two equal groups consists of 15 Girls students each namely experimental group and control group. The experimental group underwent yoga practices programme for five days per week for the duration of six weeks programme. The control group was not taking part in any training during the course of the study. VO^2 Max was taken as criterion variable in this study. The selected subjects were tested on VO_2 max was measured through wet spirometer Pre-test was taken before the training period and post- test was measured immediately after the six week training period. Statistical technique't' ratio was used to analyse the means of the pre-test and post test data of experimental group and control group. The results revealed that there was a significant difference found on the criterion variable. The difference is found due to yoga practices given to the experimental group on VO^2 Max when compared to the control group.

Keywords: Yoga practices, Wet Spirometer VO^2 Max and 't' ratio

Introduction
In today's society, with computers, televisions and cars, most people do not have sufficient physical exercise to maintain adequate health. In fact, many people have become so sedentary; that their life style has become a serious threat to their health and their lack of physical exercise has began to lead to an increased deterioration of the human health and often to a premature illness and death.

The science of yoga works on physical, mental, emotional, psychic and spiritual aspects of a person. When imbalance is experienced at this level, the organs, and muscles and nerves no longer functions in harmony, rather they at in opposition to each other. Therefore yoga aims at bringing the different body functions into perfect co-ordination so that they work for the God of the whole body. Yoga has a complete massage for humanity. It is a message for the human body, human mind and human body, human mind and human soul**.** (Swami Kuvalayananda, 1977) [5].

In other systems of physical exercises, the internal organs of the body mostly do not get proper exercises, while yogic practices gives sufficient exercises to the internal organs of the body. Yoga practices have a greater impact on the mind and control the senses. Yogic practices make possible not only physical and mental development but also intellectual and spiritual development. Yoga practices are called a 'non-violent activity' (Sharma, 1984) [4].

Methodology
The purpose of the study was to find out the Effect of yoga practice on vo^2 max among School Girls. To achieve this purpose of the study, thirty School Girls students were selected as subjects at random. The age of the subjects were ranged from 14 to 17 years. The selected subjects were divided into two equal groups of fifteen subjects each, such as yoga practices group (Experimental Group) and control group. The experimental group underwent yoga practices for five days per week for the duration of six weeks. Control group, which they did not undergo any special training programme apart from their regular physical activities as per their curriculum. The following physiological variable, namely VO^2 Max was selected as criterion variable. All the subjects of two groups were tested on selected criterion variable VO^2 max was measured through wet spirometer at prior to and immediately after the training programme. The 't' test was used to analysis the significant differences, if any, in between the groups respectively. The 0.05 level of confidence was fixed to test the level of significance which was considered as an appropriate.

Analysis of the data
The significance of the difference among the means of the experimental group was found out by pre-test. The data were analysed and dependent 't' test was used with 0.05 levels as confidence.

Table 1: Analysis of t-ratio for the Pre and Post Test mean values of Experimental and Control Groups on Vo^2 Max (Scores in ml/kg/min)

Variables	Group	Mean		SD		Sd Error		df	't' ratio
		Pre	Post	Pre	Post	Pre	Post		
VO2 Max	Control	40.65	40.54	1.27	1.09	0.32	0.28	14	0.64
	Experimental	40.73	44.08	1.32	1.69	0.34	0.43		13.82*

*****Significance at 0.05 level of confidence.

The Table-I showed that the mean values of pre-test and post-test of the control group on VO^2 Max are 40.65 and 40.54 respectively. The obtained 't' ratio was 0.64, since the obtained 't' ratio was less than the required table value of 2.14 for the significant at 0.05 level with 14 degrees of freedom it was found to be statistically insignificant. The mean values of pre-test and post-test of the experimental group on VO^2 Max are 40.73 and 44.08 respectively. The obtained 't' ratio was 13.82* since the obtained 't' ratio was greater than the required table value of 2.14 for significance at 0.05 level with 14 degrees of freedom it was found to be statistically significant. The result of the study showed that there was a significant difference between control group and experimental group in VO^2 Max. It may be concluded from the result of the study that experimental group improved in VO^2 Max due to six weeks of yogasana practice.

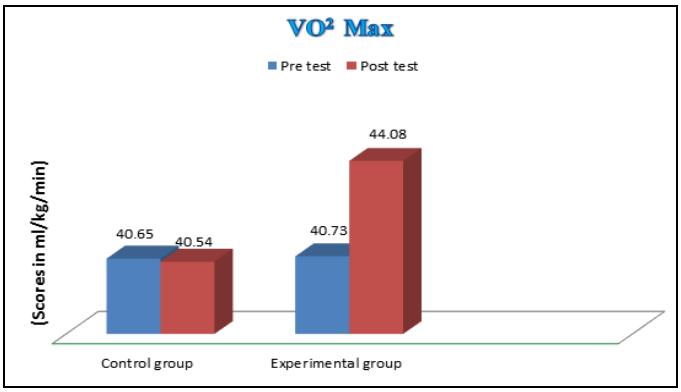

Fig 1: showing the pretest and posttest mean values of experimental and control group on vo^2 max

Discussions on Findings

The result of the study indicates that the experimental group, namely yogasana practice group had significantly improved the selected dependent variable, namely VO^2 Max, when compared to the control group. It is also found that the improvement caused by yogasana practice when compared to the control group. The result of this study on VO^2 Max has in line with the study conducted by Doijad, V. P., Kamble, P., & Surdi, A. D. (2013) [2].

Conclusions

1. There was a significant difference between experimental and control group on VO^2 Max after the training period.
2. There was a significant improvement in VO^2 Max. However the improvement was in favor of experimental group due to six weeks of yoga practices.

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