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A STUDY ON YOGA INTERVENTION ON MAXIMAL OXYGEN UPTAKE AMONG STRESS PATIENT

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ABSTRACT The purpose of the present study was to investigate a study on yoga intervention on maximal oxygen uptake among stress patient. To achieve the purpose of the study thirty stress patient were selected from, Sivganaga District, Tamilnadu, India during the year 2019. The selected patient were divided into two equal groups consists of 15 patient each namely experimental group and control group. The experimental group underwent a yoga intervention programme for five weeks. The control group was not taking part in any training during the course of the study. Maximal oxygen uptake was taken as criterion variable in this study. The selected subjects were tested on Maximal oxygen uptake was measured through Cooper's 12 Minutes Run or Walk Test (stop watch and heart rate monitor). Pre-test was taken before the training period and post-test was measured immediately after the five weeks 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 was found due to yoga intervention given to the experimental group on Maximal oxygen uptake when compared to control group.

KEYWORDS : Yoga intervention, Maximal oxygen uptake and't' ratio.

1. INTRODUCTION

Yoga is a methodical effort towards self-perfection by the development of the potentialities latent in the individual. It is a process by which the limitations and imperfections can be washed away resulting in a super human race. (Vrinte, 2002).Yoga is universally benefiting all people of all ages. The study of Yoga is fascinating to those with a philosophical mind and is defined as the silencing of the mind's activities which lead to complete realization of the intrinsic nature of the Supreme Being. (K. Alaguraja., et. al., 2017) the science of Yoga Nidra is based on the receptivity of consciousness. (Yoga, et. al., 2018) Obesity is a medical condition in which excess body fat has accumulated to the extent that it may have a negative effect on health, leading to reduced life expectancy and/or increased health problems (WHO 2000).

Today's there is an escalating emphasis on appearing smarter, feeling better and living longer. In order to achieve these ideals as, scientific evidence tells us that one of the keys is high fitness and exercises. On the contrary, acquiring these ideals is a challenge because today physical activity is less a part of our daily lives. Training is not a recent discovery. In ancient times, people systematically trained for military and Olympic endeavors. Today athletes prepare themselves for a goal through training (Kerr, R. 1982).

Today, sports have become a part and parcel of our culture. It is being influenced and does influence all our social institutions including education, economics, arts, politics, law, mass communication and even international diplomacy. In fact its scope is awesome. Yoga is a system of exercises which helps the mind and body in order to achieve tranquility and spiritual insight. (K. Alaguraja., et. al., 2019) Yoga therapy that includes Aasanas and Pranayama is fast advancing as an effective measure to prevent physical and psychological disorders; (Uma & Nagendra, 1989) by changing the human mind and body in a holistic way (Jackson, 2004).

Maximal oxygen uptake is the maximal oxygen uptake or the maximum volume of oxygen that can be utilized in one minute during maximal or exhaustive exercise. It is measured as milliliters of oxygen used in one minute per kilogram of body weight (Strukic, P.J. 1981).

2. METHODOLOGY

2.1 Selection of subjects

The purpose of the study was to find out the yoga intervention on maximal oxygen uptake among stress patient. To achieve this purpose of the study thirty stress patients were selected as subjects at random. The age of the subjects were ranged from 25 to 40 years.

2.2 Selection of variable

2.2.1. Independent variable

- Yoga intervention

2.2.2. Dependent variable

- Maximal oxygen uptake

3. Experimental design

The selected subjects were divided into two equal groups of fifteen subjects each, such as a yoga intervention group (Experimental Group) and control group. The experimental group underwent yoga intervention for five days per week for five 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 Maximal oxygen uptake was selected as criterion variable. All the subjects of two groups were tested on selected criterion variable Maximal oxygen uptake was measured through Cooper's 12 Minutes Run or Walk Test (stop watch and heart rate monitor) at prior to and immediately after the training programme.

3.1 Statistical technique

The't' test was used to analyse the significant differences, if any, difference between the groups respectively.

3.2 Level of significance

The 0.05 level of confidence was fixed to test the level of significance which was considered as an appropriate.

4. 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.

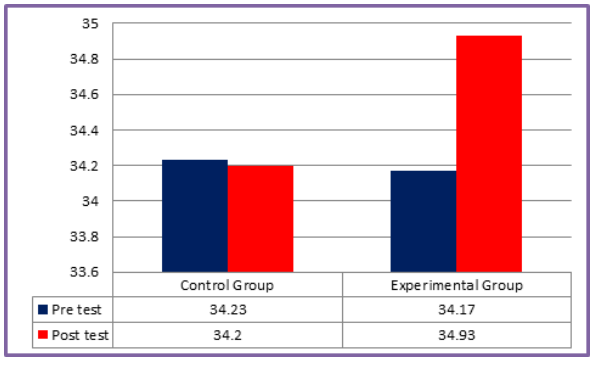
Table I Analysis of t-ratio for the Pre and Post Tests of Experimental and Control Group on Maximal oxygen uptake (Scores in ml/kg/min)

Variables	Group	Mean		SD		df	't' ratio
		Pre	Post	Pre	Post		
Maximal oxygen uptake	Control	34.23	34.20	1.96	2.05	14	0.31
	Experimental	34.17	34.93	1.78	1.83		6.81*

**Significance at 0.05 level of confidence.*

The Table-I shows that the mean values of pre-test and post-test of the control group on Maximal oxygen uptake were 34.23 and 34.20 respectively. The obtained 't' ratio was 0.31, 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 Maximal oxygen uptake were 34.17 and 34.93 respectively. The obtained 't' ratio was **6.81*** 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 Maximal oxygen uptake . It may be concluded from the result of the study that experimental group improved in Maximal oxygen uptake due to five weeks of yoga intervention.

Figure-1 Bar Diagram Showing the Pre and Post Mean Values of Experimental and Control Group on Maximal oxygen uptake



5. DISCUSSIONS ON FINDINGS

The result of the study indicates that the experimental group, namely yoga intervention group had significantly improved the selected dependent variable namely Maximal oxygen uptake, when compared to the control group. It is also found that the improvement caused by yoga intervention when compared to the control group. (Alaguraja, 2019)

6. CONCLUSION

On the basis of the results obtained the following conclusions are drawn,

1. There was a significant difference between experimental and control group on Maximal oxygen uptake after the training period.
2. There was a significant improvement in Maximal oxygen uptake. However the improvement was in favor of experimental group due to five weeks of yoga intervention.

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