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A Critical Study On The Effect Of Yogic Practices On The Health Of Jewellary Employees

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Abs tract:-*"A Critical study on the Effect of Yogic Practices on the health of Jewellary Employees" has been conducted at Malabar Gold Employees Hostel, Falnir, Mangalore. Total of 22 subjects of the age group of 22 to 45 years were selected. The 22 subjects were divided randomly 12 as experimental group and 10 were control group. Experimental group has undergone an experimental intervention involving selected yogic practices on every Morning, 6 days in a week for 40 days. Body weight, water percentage, fat percentages, muscle percentage, calorie analysis, systolic and diastolic B.P were physiological parameters. Result of the study shows that most of the physiological parameters have shown significant changes. Therefore regular practice of Yoga helps to bring fitness of the body, good health by controlling the various activities of body.*

Keyw ords:Yogic practice, health, physiological parameters.

INTRODUCTION

Physical development is an integral part of overall personality development of an individual. Yoga helps in this direction both at morphological and functional level along with the mental aspects. Yoga also helps to change the body composition and it reduces body fat with the increase in muscle mass. Specific yoga practices reduce body fat deposition on specific regions of the body.

Due to the modern lifestyle many are troubling with uncomfortability of physiological health as well as disorders related to the mind. In most of the cases due to the busy work patterns made unaware about the food system. It may cause various diseases like obesity, hypertension etc. In the subjects of the current study done with the jewellary employs were also face the problems related to the digestion because according to them they were unable to get food in time due to their busy schedule of work in whole day. Most of them are complained with burning of the stomach, gastritis etc. Therefore the physiological parameters taken were Body Weight, Water and Fat percentage of the body, Muscle percentage, Bone Mass analysis and Calorie analysis.

Selected Asanas and Pranayamas were taught to the experimental group. The data were collected before and after the practice of yoga from both Experimental and Control group and the data is compared.

METHODS

The present study was conducted to assess the effect of Yogic practices on selected physiological parameters on jewellery employees of the age between 22 to 45 years are selected randomly. There were 22 volunteers to participate in the study. Out of 22 subjects 12 were taken as an Experimental group and 10 are considered as control group. A detailed case history of each subject was taken Five days prior to the commencement of practical session. During the study Yogic practices were given 6 days in a week for total 40 days. The duration of the daily practice was 1 hour and timings for the practice was 6.45 AM to 7.45 AM. to the experimental group at Malabar Gold Employees Hostel, Falnir. For the subjects of Experimental group, a standard sequence of selected Asanas and Pranayamas were introduced. The required data are recorded from both the Experimental and Control groups before and at the end of the study and a paired "t" test was employed in the study to analyze the statistical significance of the result.

PHYSIOLOGICAL PARAMETERS:

Body Weight: There is an ideal weight for every human being. If the weight is increased too much from the ideal weight and too less from the ideal weight then there may be the problems related to the health.

Body Water Percentage: Total body water is generally determined by using antipyrine. For the purpose of measuring the water percentage of the subjects during the project used the salter. The intracellular fluid contains about

55 % of the whole body water and it is postulated that 55% of water is present in the intracellular space and the rest in extracellular space. It can be determined by subtracting the values of the extracellular compartment from the value of the total body water.

Body Fat percentage: Body fat content may be measured using a number of techniques. The simplest method involves measuring skin fold thickness using a spring-coated caliper and then applying the values to published equation more exacting methods employ underwater weighing, isotopic measurement of whole body potassium content an index of lean mass or impedance analysis. The latter depends on the difference in electrical resistance between lean tissue and fat. Normal body fat content of an adult is 10 to 20% in men and 20 to 30% in women.

Blood Pressure: It is the pressure exerted by the blood on the walls of the blood vessels. There is Systolic and Diastolic blood pressure and are measured by the instrument Sphygmomanometer. In an adult generally the range for blood pressure is 120/80 mmHg. It is Systolic/Diastolic Blood pressure.

Muscle Percentage: Muscles are specialized tissues, which can convert chemical energy into the mechanical power and force. Muscles are predominantly powered by the oxidation of fats and carbohydrates. Muscular activity accounts for much of the body's energy consumption.

Calorie Analysis: A calorie is a unit of measurement of energy. Calories provide the fuel to keep the human body going. They provide our body with the energy that we require to perform all our body functions. We require energy for survival to breathe, pump blood and for all kinds of physical activity.

BONE MASS:

A bone mineral density (BMD) test is the best way to determine the bone health. The test can identify osteoporosis, determine the risk for fractures.

World Health Organization Definitions Based on Bone Density Levels

Level	Definition
Normal	Bone density is within 1 SD (+1 or - 1) of the young adult mean.
Low bone mass	Bone density is between 1 and 2.5 SD below the young adult mean (- 1 to - 2.5 SD).
Osteoporosis	Bone density is 2.5 SD or more below the young adult mean (- 2.5 SD or lower).
Severe (established) osteoporosis	Bone density is more than 2.5 SD below the young adult mean, and there have been one or more osteoporotic fractures.

SD – Standard Deviation.

YOGIC INTERVENTION:

During the project of 40 days of duration the following practices are given to the Experimental group.

Asanas: Vajrasana, Suptavajrasan, Svastikasana, Trikonasana, Parshvakonasana, Pashchimottanasana, Purvottanasana, Tadasana, Pavanamuktasana, Dhanurasana, Bhujangasana, Shalabhasana, Makarasana, Bharadvajasana, Viparitakarani, Uttanapadasana, Shavasana 1 & 2

Pranayamas: Bhastrika,, Ujjayi, Anuloma-viloma, Bhahya Kumbhaka.

RESULT

Both the experimental and control group were tested before and after the study and the data were collected and reported. The final result shows that an overall improvement in the water and fat percentage of the body, similarly the improvement in the muscle percentage, calorie analysis. All the subjects who were participated in the Yoga were observed that the freshness during their working hours as well as many were unaware about their timings of food due to less hungry they were noticed the aware of their food for in time.Statistical analysis of the data

Experimental group:

Table No.1

Sl. No.	Parameters	Mean		S D		"t" value	"p" value	Sig
		Pre	Post	Pre	Post			
1	Body Weight	70.65	69.79	15.88936	15.44247	3.7903	0.002993	S
2	Water %	55.258	57.583	9.829127	8.115511	-3.5282	0.00473	S
3	Fat %	24.183	21.358	13.49551	11.22679	3.0326	0.0114	S
4	Muscle %	33.691	35.191	6.205636	5.089286	-3.3968	0.005962	S
5	Bone Mass	2.5666	2.825	0.429234	0.128805	-1.9703	0.07449	NS
6	Calories	1469.8	1539.2	121.1909	181.7781	-2.2324	0.04733	S
7	Systolic B.P	124	118.5	14.06479	9.268716	2.0384	0.06629	NS
8	Diastolic B.P	81.833	74	9.998485	11.24924	3.3455	0.006529	S

S – Significant; NS – Non Significant.

Control Group:

Table No.2

Sl. No.	Parameters	Mean		S D		"t" value	"p" value	Sig
		pre	Post	Pre	Post			
1	Body Weight	63.79	63.51	10.6776	10.801	0.9124	0.3853	NS
2	Water %	58.13	58.76	5.61309	4.9895	-1.0865	0.3055	NS
3	Fat %	20.34	19.55	7.69649	7.1248	0.9949	0.3458	NS
4	Muscle %	35.94	36.53	3.56408	2.9477	-1.4684	0.176	NS
5	Bone Mass	2.78	2.86	0.28596	0.0843	-1	0.3434	NS
6	Calories	1468.	1484	147.821	149.96	-0.9555	0.3643	NS
7	Systolic B.P	119.8	121.8	11.8302	9.7273	-0.8076	0.4402	NS
8	Diastolic B.P	74.8	74.8	8.65126	7.3151	0	1	NS

S – Significant; NS – Non Significant.

DISCUSSION

The current study, Effect of Yogic Practices on Physiological and Biochemical Parameters shows that most of the parameters give significant changes. Subjects were in

the age group 22 – 45 years. The analysis of result is done with the two groups, that is experimental group and control group and were compared the pre and post readings. The level of significance is $p \leq 0.05$. In this study the result shows there is a reduction in mean body weight from 70.65 to 69.79 Kg in experimental group with p=0.002993. Whereas the control group shows no such significant change with p=0.3853, the level of significance being $p \leq 0.05$. In the experimental group, a subject has shown a decrease of 1.9 Kg body weight, highest in the group in 40 days of practice.

Water percentage of the body in experimental group shows significant changes with p=0.00473. By comparing the pre and post readings for this parameter, it shows that there is mean increase from 55.25 to 57.58% in the body water percentage in experimental group. But there is no any significant change in the control group. The fat percentage of experimental group has decreased due to the practice of Yoga. Because the control group shows there is no significant change in the control group. The p value for experimental group is 0.114 but in control group p=0.3458. Then in muscle percentage, statistical analysis for experimental group shows the significant changes with p=0.005962. Where as in control group it shows no significant change with p=0.176. It is because, most of the yogic practices, especially asanas require fine control over the use of the muscles and joints. The controlled use of specific group of muscles to bring about a particular movement and the maintenance of the final position with minimum amount of muscle tone, are the two important factors in the performance of these asanas. Because of this all the three features of muscular activity that is the skill, the strength and the stamina are influenced by the yogic practice. The result of calorie analysis for this study shows that mean increase from 1469.83 to 1539.25 and p=0.04733. In control group it shows no significant change. Asans are helpful in improving digestive fire there by there is an increase in the intake of food. In the experimental group Diastolic B.P shows highly significant changes with p=0.006529 and in control group it shows no significant changes. The mean value is for this is reduced from 81.83 to 74. It is because, during certain Yogic practices various parts of the chest and abdomen are manipulated which lead to the rise or fall in the pressure over the various parts of the chest and abdomen

CONCLUSION:

Based on the outcome of the study we can conclude that the study on effect of yogic practices on Physiological and Biochemical Parameters in Jewellary Employees has shown significant changes for most of the physiological parameters. Yoga practices showed positive improvement in measured physiological variables, it is concluded, the inclusion of yoga in their daily routine, certainly will help in improvement of health and contribute their wellbeing.

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