EFFECT OF SURYANAMASKAR PRACTICE ON MEMORY AMONG BELOW AVERAGE HIGH SCHOOL STUDENTS

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Abstract
The purpose of the study was to find out the effect of suryanamaskar practice on memory among below average high school students. To achieve the purpose of these study 30 students from the high school of Trichur district were randomly selected as subjects. They were clinically confirmed cases of below average students at different high schools. The selected subjects underwent suryanamaskar practices for a period of 8 weeks. The subjects were tested on the memory parameters at the beginning (pre test) and at the end of the experimental period (post test). The test included verbal and non-verbal material and measured remote recent, immediate short term, very short term, intermediate long term and long term memory. Through this study it was found out that the suryanamaskar practice improved and increase the memory of the below average high school students. So it is suggested that the suryanamaskar practice for the all the high school students for improving the memory through suryanamaskar.

Introduction

Memory is important not only to students to pass examination but to every one in every day life. Remembering the names and other details of people who are important to us improves our personal, professional and social life. Remembering to pay our monthly bills on time ,ensures continuation of those utilities without paying fines. Remembering facts and figures related to our profession and business ensures better performance and progress in our personal and professional. Life Memory is the ability of the brain to store, retain and subsequently recall information.

Suryanamaskar is the art of solar visualization and an ancient Indian yoga technique. It is the complete meditative techniques in itself as it includes Asana, pranayama, mantras and mudras. It has got three aspects from vital energyand rythem. Suryanamaskar is a combination of 12 different postures followed in a particular sequence with a specific breathing pattern. It helps an individual to utilize and unblock the whole system. Whether we regularly practice yoga or not, we can enjoy the health benifitof suryanamaskar. Suryanamaskar provides all of the health benefits of yoga in a very succinct package. It is a holistic exercise that provides physical health benefits, but also mental or emotional as well as spiritual benefits. The obivious advantage of suryanamaskar is the work out it provides for the muscles but it also benefits joints, ligaments and the skeletal system by improving postures, flexibility and balance.

Methodology

The study under investigation is intended to find out the effect of suryanamaskar on memory among below average high school students. It was hypothesized that there must be significant improvement on the memory of high school students due to the effect of suryanamaskar practices. To achieve the purpose of the study 30 high school students from different high schools from the Trichur district were seleted. They were clinically confirmed cases of below average students 13 to 18 years. They were selected by lot method and they were divied randomly in to two groups such as experimental and control groups. Their written voluntary consent was obtained after clearly explaining the nature of the study. The practice programmer and variables under which they would be tested and they were assured that their data would not be used for my purpose other than the present study at the time if they feel any discomfort or difficulty in continuing with the practice programme.

The selected 30 subjects were randomly divided into two equal groups of fifteen subjects each, out of which group 1 (n=15) underwent suryanamaskar practice for 8 weeks only group 2 (n =15) remained as control. The subjects were free to withdraw their consent in cas of feeling any discomfort during the period of their participation but there was no drop out during the study. The subjects were tested on the memory parameters at the beginning (pre test) and at the end of the experimental period (post test). The test included verbal and non – verbal material and measured remote, recent, immediate short term, intermedite term and long term memory.

The PGI memory scale (Pershad and Wig 1994) was employed to asses memory functions of the patient. The PGIMS consists ten subjects; each subject has a maximum score of 6, 5, 9, 15, 10, 12, 5, 15, 13, and 10 respectively. The total score is 100. These tests measured different aspects of memory and employed different methods of recall. These tests are as follows.

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1. Remote memory: it comprises of six simple questions relating to personal and current information . scores are allotted as per correct responses given by the patient.
2. Current memory: it consists of five questions to assess the patient's ability to recall information and events in the recent past.
3. Mental balance: this test gives an idea of balance over one's mental functioning. The learned material (alphabet and numbers) were recalled in back ward series.
4. Attention and concentration: this function was evaluated by the test of digit span forward and backward repetition.
5. Delayed recall: in this test the investigator reads out the name of common objects (two series of fi ve each) at a uniform interval . the patient was instructed to recall the same after one minute and score of correct recall recorded.
6. Immediate recall : this test included sequential reproduction of the sentence in verbation. Patient was asked to recall the sentence immediately.
7. Verbal retention for similar pairs: a series of similar associative pair of words were administered to the patients. The patient asked to mention the associative words in response to the stimulus word.
8. It is similar to the previous test' however the associative pair of words was unrelated and dissimilar. Patients were allowed up to three trials in the test.
9. Visual retention: in this test the investigator displayed a card containing geometrical figure. Each card was showed for 15 patients instructed to reproduce the drawing from memory.
10. Recognition : in this test the investigator showed a card containing common objects. The patient was allowed to observe this card. Two minutes a later a second card containing another set of pictures appeared in the first card shown to the patient. Patients were asked to identify and name the pictures that appeared in both the cards. Correct responses were recorded and scores allotted accordingly. To achieve the purpose of the patient study, training programme for experiment group was given. The subjects of the control groups were participated In the training.

Statistical Techniques
The following statistical procedures were followed to find out the effects of suryanamaskar on memory. The resources used Analysis of Covariance (ANCOVA) for interpreting the results. After eliminating and influencing of pretest, the adjusted post test means of experimental groups and contro group tested were significant by using ANCOVA.

If there were any significance found, scheffe's post hoc test was applied. The data were analyzed with the computer using 'SPSS' statistical package. The level of confidence was fixed at 0.05 level of confidence.

Analysis of Data
Collected data were statistically analyzed with F ratio test to find out the significant difference between and pre test and post test

TABLE –I,The Summary Of Means And Analysis of Covariance for the Pre-Test And Post-Test, Adjusted Post Test Data on Memory of Experimental and Control Group

Test	Suryanamaskar Group	Control Group	SOV	Sum of Squares	Df	Mean Square	'F' Ratio
Pre-Test Mean	63.73	64.40	Between	3.33	1	3.33	1.287
SD	2.02	1.06	Within	75.53	28	2.59	
Post-Test Mean	65.73	64.00	Between	22.53	1	22.53	8.42*
Sd	2.02	1.13	Within	74.93	28	2.68	
Adjusted Post-Test Mean	66.03	63.70	Between	38.93	1	38.93	62.65*
			Within	16.80	27	0.62	

Significant at 0.05 level of confidence
(The table value required for significance at 0.05 level of confidence with DF 1 and 28 and 1 and 27 were 4.20 and 4.21 respectively)

Table – I shows that the pre test means of memory for suryanamaskar practice group and control group were 63.73+2.02 and 64.40+1.06 respectively. The obtained F ratio value of 1.287 for pre test score of suryanamaskar practice group on memory was less than the required table value of 4.20 for insignificant with df 1 and 28 at 0.05 level of confidence.

The post test means value of memory for suryanamaskar practice group and control group were 65.72+2.02 and 64.00+1.13 respectively. The obtained F ratio of 8.42 for post test scores of suryanamaskar practice group and control group was greater than the required table value of 4.20 for significance with df 1 and 28 at 0.05 level of confidence.

The adjusted post test mean value of suryanamaskar practice group and control group were 66.02 and 63.70 respectively. The obtained F ratio value of 62.56 for adjusted post test score of suryanamaskar practices group and control group was greated than the required table value of 4.21 for significance with df 1 and 27at 0.05 level of confidence

The resutlts of the study also showed that there was a significant improvement in memory after the suryanamaskar practice

The mean value in memory of suryanamaskar practice group and control group are graphically represesnted in figure 1

Figure – 1, Summary of Means for the Pre-Test and Post-Test Data on Memory of Experimental and Control Group
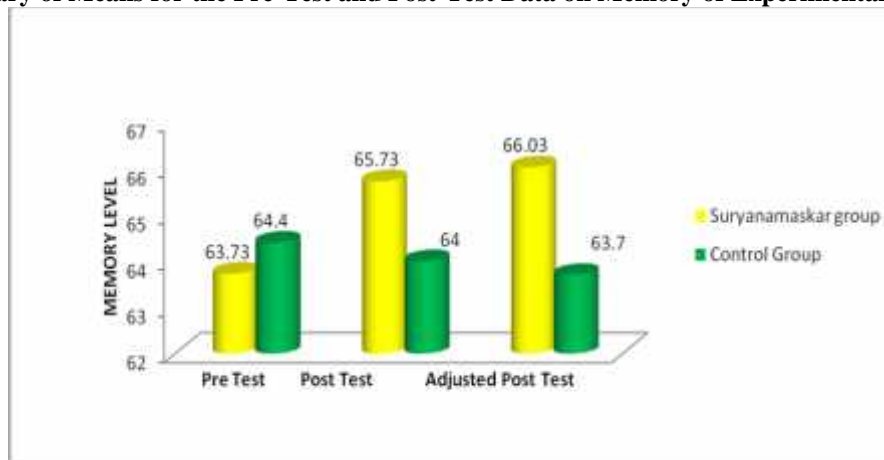
Discussion on Findings
1. The results of the study showed that the experimental group that practiced suryanamaskar increased the memory. This may be due to the nature of the suryanamaskar programme that was advocated in the training schedule.
2. Among the experimental group and control group, the experimental group significantly showed the difference between pre and post test when compared to control group.

Conclusions
Within the limitations of present study, the conclusions were drawn.
1. Memory of experimental group showed significant difference when compared to control group.
2. There was no significant difference in memory of control group.

Bibliography
1. Joseph j. Keene JR,   Galt T martin F. Antidepresents psychiatry and medicine. J Am Dent   Assoc 2003;134:71-9
2. Duraiswamy P M, Krishnan K R , Oxman T, Jenkyn L R, Coffy D J, Burt T Does anti depresent therapy improve cognition in elderly depressed patients? J Gerontol A Biol Sci Med Sci 2003;58:1137-44
3. Jaquiline D Memory loss in apatient treated with fluxotine. Ann Pharmacother 2003;37: 1800-3.
4. Spring B Gellenberg A J . Garvin R Thompson S. Amitriptyline, Clovaxomine and cognitive function:A Placebo controlled camparisonin depressed out patients , Psychopharmochology(Berl) 1992;108: 327-32.
5. Wingen M,   Ramakaers J G, Sshmitt JA. Driving impairment in depressed patientsreceiving long term anti depressant treatment. Psychopharmochology 2006;188: 84-91.
6. Haslam C, Atkinson S, Brown S, Haslam R A. Peceptions of the impact of depressionand anwiety and medication of these conditions on safty in the work place. Occup Environ MED 2005; 62:538-45.