EFFECT OF YOGA ON ATTENTION AND REMEMBRANCE IN RELATION TO ANXIETY

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ABSTRACT

BACKGROUND: Attention means wholeness unity, equilibrium. It is the focusing of attention upon a particular object. Remembrance is an ability to recall or remember past events or previously learnt information or skills. The process of attention and a power of recalling (Remembrance) are the major factors in learning. Improvement in Attention and Remembrance has been reported in several yogic studies.

AIMS AND OBJECTIVES: The main objective of the study was to assess the effect of yoga module on Attention and Remembrance.

MATERIALS AND METHODS: The study started with 800 adolescent students; 159 high anxiety students and 142 low-anxiety students were selected on the basis of scores obtained through Stress Battery. Experimental group and control group were given pre-test to assess their attention as well as short term remembrance. A yoga module consisting of yoga asanas, pranayama, meditation, prayer and a value orientation programme was administered on experimental group for 7 weeks. The experimental and control groups were post-tested for their performance in attention and remembrance tests.

RESULTS: The results show that the students, who practiced yoga module yielded higher attention levels and exhibited better short term remembrance.

KEYWORDS: Attention, Short term Remembrance, Anxiety, yoga, yoga module.

INTRODUCTION

“We know what we are, but know not what we may be”, said by William Shakespeare, Today’s man is living in the web of pressures, tension and stress. Everyone is facing the menace of stress in one way or
the other. The focus of our present education system is mainly on the production of mechanical intellectuals not on the creation of human beings, which is the ultimate aim of education and life. Present study is an effort in order to prepare a yoga module to create a holistic education system, which may help educators in developing body mind and spirit of their students, so that our education system enables all the individuals to create a balance between material prosperity and spiritual growth.

A person focuses his attention for any length of time; we refer to it as concentration. Attention is the attributive state of sensory clearness, the active selection and emphasis of one component of a complex experience, a sensory adjustment of precluding for optical stimulation of a sense modality, adjustment of the sense organs to facilitate response to a particular stimulus or situation and to inhabit response to extraneous stimulus or situation.

Hatha yoga practices like asanas, kriyas, mudras, bandhans and meditation techniques helped the subjects to develop awareness within them by improving their intellectual and somatic functions. Various research studies concluded that yoga and meditation influenced attention positively. Transcendental Meditation is reported to improve short term remembrance. The investigation made by various researches proved that yogic practice improves memory of the School children.

The present study examines whether there is an effect of yoga module on attention and short term remembrance of adolescent students. With this background, the objective of this study was (i) to study the effect of yoga on attention of the students (ii) to study the effect of yoga on short term remembrance of the students.

MATERIALS AND METHODS

SUBJECTS

The study was conducted in eight public schools of Chennai City which were randomly selected from Adyar and Kanathur. Before random selecting, schools were matched for infrastructure, student strength and human resources. Bisht Battery of Stress Scale (BBSS) was administered on 800 students of Class 9 (intact classes). The participants were 400 boys and 400 girls, with ages ranging from 14 to 15 years. Anxiety was studied as an independent variable and used for the purpose of classification.

Validity of Bisht Battery of Stress Scales (BBSS): All the scales appear to be having content validity and item validity. The method of selecting items support this supposition. In addition, construct validity (discriminability) is estimated for all scales in a two-fold fashion. The first type tested if the construct measured differentiated students is on some related construct. For this, memory is taken. The second type tested if the construct measured by the scale is not related to construct predicted by theory. For this, internal evaluation is taken. In both, the construct validity is affirmed.

ASSESSMENTS

Bisht Battery of Stress Scale was used to identify different levels of anxiety among the students i.e., high anxiety and low anxiety. This was done before the start of experiment. Details of its administration are mentioned above under the heading “Subjects”. Yoga module was used as an intervention treatment for the experimental group for an hour daily in the morning for 7 weeks.
Academic performance test was used as a pretest and posttest for the experimental as well as control groups to assess the effect of yoga module on the academic performance of the experimental group and to compare it with the control group, who never practiced yoga module.

**INTERVENTION**

A yoga module [yogasana + pranayama + meditation + prayer + value orientation program] was shared daily for an hour in the morning with the experimental group for 7 weeks.

**STATISTICAL ANALYSIS**

To study an effect of yoga and stress on the concentration and short term memory, 2 X 2 Factorial design (ANOVA) was employed on the adjusted gain scores of concentration as well as short term memory, wherein stress is a classificatory variable and studied at two levels, i.e. students with high stress and students with low stress. Yoga module has been taken as a treatment variable, was given to the experimental group.

**TABLE**

**SUMMARY OF ANOVA ON THE ADJUSTED GAIN SCORES OF SHORT TERM MEMORY IN RELATION TO STRESS AND YOGA INTERVENTION**

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>SS</th>
<th>MSS</th>
<th>F-Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yoga (A)</td>
<td>1</td>
<td>16358.27</td>
<td>16358.27</td>
<td>30.11**</td>
</tr>
<tr>
<td>Stress (B)</td>
<td>1</td>
<td>601.43</td>
<td>601.43</td>
<td>1.11</td>
</tr>
<tr>
<td>Interaction</td>
<td>1</td>
<td>282.69</td>
<td>282.69</td>
<td>0.52</td>
</tr>
<tr>
<td>Within</td>
<td>297</td>
<td>161322.17</td>
<td>543.17</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>178564.56</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Df = degree of fraction  
SS = Sum of Squares  
MSS = Mean Sum of Squares  
** Significant at the 0.01 level of confidence  
P value = 3.87 (at 0.05 level)  
= 6.72 (at 0.01 level)

**RESULTS**

Table reveals that F-ratio for the difference between means of high anxiety group and low anxiety group on the adjusted gains scores of attention was found to be significant at the 0.01 level of confidence. This indicates that the students of experimental group and control group differ on the adjusted gain scores of attention.
Table further reveals that F-ratio for the difference between means of high anxiety group and low anxiety group on the adjusted gain scores of attention was not found to be significant even at 0.05 level of confidence indicating that the students with low anxiety and the students with high anxiety exhibited comparable adjusted gain scores of attention. Further Table shows that F-ratio for the difference between means of high anxiety group and low anxiety group on the adjusted gain scores of short term remembrance was not found to be significant even at the 0.05 level of confidence. It indicates that students with low anxiety and students with high anxiety exhibited comparable adjusted gain scores of short term remembrance.

**DISCUSSION**

It is evident from the results that the students who were exposed to yoga module exhibited enhanced Short Term Remembrance and improved Attention. The results are in tune with the earlier findings, which reported that yogic practice improves remembrance of school children. Other researchers found that Transcendental Meditation improved short term remembrance. Another research studies reported that yoga and meditation influenced attention positively. One more research done by researchers he revealed that meditation can alert the physical structure of our brain, which deals with attention and processing sensory input. It further reported that yoga improves attention.

The findings also revealed that attention and short term remembrance do not significantly differ in high anxiety and low anxiety groups. One of the reason to this contradiction could be that in the present study, only academic and achievement anxiety were studied whereas in most of earliar studies anxiety was measured in totality and also some physical measures such as Blood Pressure (B.P.), heart rate, Pulse Rate, Brain functioning etc. were taken as indicators.

It may be concluded from the findings of the study that with intervention of the yoga module, the Attention and Short Term Remembrance improve which may positively affect performance of the students. Therefore, it is suggested that yoga module should become a regular feature of the school curriculum.

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