IMPACT OF YOGA ON STRESS AND SELF CONFIDENCE AMONG THE MIDDLE AGED MEN

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CONTEXT. SIGNIFICANCE OF THE STUDY:
Being India a thickly populated country in the world, the health problems of the middle aged men increase day by day in different dimensions, it become utmost necessity to find ways and means, especially suitable physical activity such as yoga. There is lack of scientific research to find out the influence of yoga on different groups of people and on different variables such as psychological. To contribute and lay scientific foundations of the benefits of yoga among middle aged men, this research was undertaken. The purpose of the study was to find out the effect of yoga on selected psychological variables among middle aged men. To achieve the purpose of the study, thirty middle aged men subjects in the age group of thirty to forty five years were selected and they were assigned into two different groups, namely, experimental group and control group consisting of fifteen subjects in each group. Experimental group was considered as yoga group and control group was not provided with any special training. The requirements of the experimental procedures, testing as well as exercise schedules were explained to them so as to avoid any ambiguity of the effort required on their part and prior to the administration of the study, the investigator got the individual consent from each subject.

Sample of Profile: Middle age is the period of age beyond young adulthood but before the onset of old age. Various attempts have been made to define this age, which is around the third quarter of the average life of human beings. According to Collins Dictionary, this is "... usually considered to occur approximately between the ages of 40 and 60". The current edition of the Oxford English Dictionary gives a similar definition but with a shorter span: "The period of life between young adulthood and old age, now usually regarded as between about forty-five and sixty." The US Census lists middle age as including both the age categories 35 to 44 and 45 to 54, while prominent psychologist Erik Erikson saw it ending a little later and defines middle adulthood as between 40 and 65. The DSM, the Diagnostic Statistical Manual of Mental Disorders, the standard diagnostic manual of the American Psychiatric Association, used to define middle age as 40-60, but as of Edition IV (1994) revised the definition upwards to 45-65, reflecting not so much extended lifespan as extended vitality among those in midlife. For the purpose of this research the age between 35 to 45 is considered as middle aged.

OBJECTIVES OF THE STUDY: The objective of the study was to find out the effect of yoga on selected psychological variables among middle aged men. In doing so, the investigator aimed at assessing the present status of middle aged men’s psychological variables, stress and self confidence. After making the status analysis, the investigation was aimed at determining the influence of yoga on each of the variable selected among the middle aged men and thereby establish the beneficial effects of yoga for middle aged men.

Hypothesis: There would be significant improvement due to the yoga on psychological variables stress and self confidence than the control group.

RESULTS ON STRESS: The comparison of post test means, experimental group 22.00 and control group 25.40 proved to be significant at 0.05 levels as the obtained 'F' value 82.01 was greater than the required table 'F' value of 4.20 to be significant at 0.05 level.

RESULTS ON SELF CONFIDENCE: The comparison of post test means, experimental group 35.20 and control group 35.07 proved to be significant at 0.05 levels as the obtained 'F' value 74.79 was greater than the required table 'F' value of 4.20 to be significant at 0.05 levels.

Key Words: Yoga, Stress, Self confidence
METHODOLOGY:

ASSESSMENT OF STRESS: The standard psychological tool device by Everyly and Girdano’s was used to quantify psychological stress. This test consists of 14 statements. Each statement consists of 4 responses: Almost always; true; usually true, seldom true, never true. All the statements are positive in nature. The respondents made a tick mark (O) on any one of the responses that fit to them best. Hence the inventory in its original form was made use of in this investigation. A copy of questionnaire is given in appendix.

Scoring: The inventory was scored with the help of a scoring key which is given below. The scoring obtained for each statement was added and it was treated as individual score. The total score constituted the psychological stress score. The range of psychological stress score of the subject is given in appendix.

This questionnaire measures time urgency, competitiveness and hostility, polyphonic behaviour (trying to do many things at a time) and lack of planning. It consists of 14 items and it tries to measure the degree of stress of the students for every item, four alternatives are given from very high to very low.

Method of Scoring: There are four alternative responses to each item. There are (a) almost always true (b) usually true (c) seldom true and (d) never true. The subject is to check one of the four as it suits to him in accordance with the idea expressed in the respective statement. The alternative answers are assigned weights from 3 to 0.

The 0 scores indicate a very low degree of stress and a score of 3 indicates very high stress level in the individual. The sum of all the weights assigned to all items in the total stress score of the individual. The minimum score is 0 and the maximum score is 42. The low score indicates low level of stress and high score indicates the high level of stress.

SELF CONFIDENCE

Equipment: Agnihotry self-confidence inventory (ASCI).

Procedure and Scoring: Scoring was the total number of points scored by each subject as per the questionnaire. A score of one is awarded for a response indicative of lack of self-confidence. That is for making cross (x) to wrong response to item numbers 2,7,23,31,40,41,45,53,55 and for making cross (x) to right response to the rest of the items. The lower the score the higher would be the level of confidence and vice versa.

Statistical Technique: The data collected from the subjects were treated statistically, by. Analysis of co-variance was used to find out the adjusted mean difference among the treatment groups. (Thirumalaisamy, 1998)

Selection of variables

The research scholar reviewed the various scientific literatures pertaining to middle aged men and yogic practices on psychological variables from books, journals, periodicals, magazines and research papers. Taking into consideration of feasibility criteria, availability of instruments and the relevance of the variables of the present study, the following variables were selected.

Dependent Variables: Psychological Variables: 1. Stress and 2. Self Confidence

Independent Variable: Yoga

Experimental design

The randomly selected subjects (N=30) were grouped into two groups, namely control group and experimental group respectively, each consisting of fifteen subjects. Pre tests were conducted for all the subjects on selected psychological variables such as stress and self confidence. The experimental group participated in their respective treatment, six weeks of yoga.

The post tests were conducted on the above said dependent variables after a period six weeks. The difference between the initial and final means was considered as the effect of respective effects on the subjects. The mean differences were subjected to statistical treatment using ANCOVA.

Criterion measures

By glancing the literature, and in consultation with professional experts, the following variables were selected as the criterion measures in this study.

1. Psychological variable stress was assessed through Everyly and Gardino’s Stress Scale

Psychological variable self confidence was assessed through Agnihotri’s Self Confidence scale.

Reliability of data

The reliability of data was ensured by establishing the instrument reliability, tester’s competency and subject reliability

Reliability was established by the test-retest processes. Six subjects from all the three groups were tested on selected variables. The repeated measurement of individuals on the same test is done to determine reliability. It is a univariate not a bivariate situation; it makes sense then to use a univariate statistics like the interclass correlation coefficient (Baumgartner and Jackson, 1975).

The intraclass correlation coefficient obtained for test-retest data are presented in Table I.
Training programme

In consultation with the experts in the field of yoga, the Simplified physical yoga exercises and meditations were selectively chosen for the experimental group. The experimental factors selected in the yoga and meditations were innumerable. The following are the training schedule for pre training – seven days.

RESULTS

Results on stress

The initial and final means on yoga training group and control group on Stress among middle aged men, through Analysis of Covariance (ANCOVA) is presented in Table II.

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>Mean Square</th>
<th>Obtained F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Test Mean</td>
<td>5.63</td>
<td>1</td>
<td>5.63</td>
<td>1.68</td>
</tr>
<tr>
<td>Post Test Mean</td>
<td>86.70</td>
<td>1</td>
<td>86.70</td>
<td>82.01*</td>
</tr>
<tr>
<td>Adjusted Post Test Mean</td>
<td>84.11</td>
<td>1</td>
<td>84.11</td>
<td>77.48*</td>
</tr>
</tbody>
</table>

The pre test mean on experimental group was 26.00, and control group was 26.87 and the obtained ‘F’ value was 1.68, which was less than the required ‘F’ value of 4.20 to be significant. Hence, it was not significant and the groups were equal at initial stage. The comparison of post test means, experimental group 22.00 and control group 25.40 proved to be significant at 0.05 levels as the obtained ‘F’ value 82.01 was greater than the required table ‘F’ value of 4.20 to be significant at 0.05 level. Taking into consideration the initial and final mean values adjusted post test means were calculated and the obtained F value of 77.48 was greater than the required F value to be significant 4.21 and hence, there was significant difference. Thus, it was proved that experimental group gained mean difference on, Stress -4.00 was due to the yoga training given to middle aged men, and the difference was found to be significant at 0.05 level. The initial, post and adjusted means values of experimental and control group on Stress is presented in Figure II for better understanding of the results of this study.

Results on self confidence

The initial and final means on the yoga training group and control group on Self Confidence among middle aged men, through Analysis of Covariance (ANCOVA) is presented in Table III.

The pre test mean on experimental group was 34.80, and control group was 37.00 and the obtained ‘F’ value was 8.58, which was greater than the required ‘F’ value of 4.20 to be significant. Hence, it was not significant. The comparison of post test means, experimental group 25.20 and control group 35.07 proved to be significant at 0.05 levels as the obtained ‘F’ value 74.79 was greater than the required table ‘F’ value of 4.20 to be significant at 0.05 levels. Taking into consideration the initial and final mean values adjusted...
post test means were calculated and the obtained ‘F’ value of 48.95 was greater than the required ‘F’ value to be significant 4.21 and hence, there was significant difference. Thus, it was proved that experimental group gained mean difference on Self Confidence 9.60 was due to yoga practice given to middle aged men, and the difference was found to be significant at 0.05 levels. The initial, post and adjusted means values of experimental and control group on Self Confidence is presented in Figure III for better understanding of the results of this study.

### DISCUSSIONS ON HYPOTHESIS

The formulated hypothesis that there would be significant improvement in psychological conditions of middle aged men due to the yoga on psychological variables self confidence and stress to improve the overall psychological levels of the middle aged men and the formulated hypothesis was accepted at 0.05 level.

### CONCLUSIONS

Within the limitations and delimitations of the study, the following conclusions were drawn: 1. psychological variable, self confidence was significantly improved due to the yoga among middle aged men and improved their psychological conditions than the control group, 2. psychological variable, stress was significantly reduced due to the yoga among middle aged men and improved their psychological conditions than the control group.

<table>
<thead>
<tr>
<th>Tabelul 3 - The initial, post and adjusted means values of experimental and control group on Self Confidence</th>
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</thead>
<tbody>
<tr>
<td><strong>Experimental Group</strong></td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td><strong>Pre Test Mean</strong></td>
</tr>
<tr>
<td></td>
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<tr>
<td><strong>Post Test Mean</strong></td>
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<td></td>
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<tr>
<td><strong>Adjusted Post Test Mean</strong></td>
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<tr>
<td><strong>Mean Diff</strong></td>
</tr>
</tbody>
</table>

Table F-ratio at 0.05 level of confidence for 1 and 28 (df) =4.20, 1 and 27(df) =4.21 .

* Significance (0.05)

**References:**
1. THATHUVAGNANI, Vethathiri Maharishi,- *Kaya kalpa yoga*; Erode Vethathiri Publications, (1995);
2. THATHUVAGNANI,Vethathiri Maharishi,- *The Yoga for Modern Age*, Erode Vethathri Publications (2005);
3. KRISHNAKANTHAN, S., Ph.D,- *Training Effects of Pranayama and Running*, Teză de Doctorat înscrisă la Universitatea din Madras, (1996);
4. KRISHNAN, K.,- *The Effect of Selected Yogic Exercises upon the Development of Flexibility*, Teză de Master nepublicată (înscrisă la Universitatea din Madras, (1977);
5. CHOWDHURY, Mahamaya,- *Anthropometric and Physiological Changes Resulting from Participation of Physical Education and Yoga Programme*, Teză de Doctorat (înscrisă la UniversitateaJiwaji, Gwalior), (1990) .