



EFFICACY OF YOGA AND MEDITATION ON ACADEMIC STRESS AMONG HIGH SCHOOL CHILDREN

Social Science

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ABSTRACT

Stress has become an inevitable word in this fast spinning technical world. Stress is been experienced by almost everyone around irrespective of the age they are in. Apart from the home environment children spend most of the time in their school environment. School environment, curriculum design, examinations and social support definitely would influence the level of stress experienced by the children. The ancient practice of yoga and meditation help children and young people cope with stress and thus contribute positively to mental health. Yoga and meditation are powerful medium for developing the personality of child and making them capable of facing the present day challenges and problems. The Present study was an attempt to find out the efficacy of yoga and meditation on academic stress among high school children. Sample of the study consisted of 60 boys and girls of various schools in Tirupati, A.P in the age group of 12-15 years. Sample was selected by using a simple randomized sampling technique. Stress was assessed by using appropriate standardized tool (Sreenivas and Kumar, 1999). Pre and post quasi experimental design was employed to find out the effect of yoga and meditation on academic stress among high school children. Pre assessment was done for children and after pre assessment yoga and meditation interventional practices were given for a period of six weeks and then post test was conducted. Means, SDs, ANOVA and t test were employed to analyze the data. Findings of the study revealed that yoga and meditation has significant influence on academic stress among high school children. Hoping that this study would provide new and relevant information regarding yoga and meditation effect on academic stress would help counselors, social workers, teachers to develop and use interventions to reduce stress among high school children.

KEYWORDS

Yoga, Meditation, Academic stress and Mental health

INTRODUCTION

Stress becomes an integral part of human life. Anything that creates a challenge or a threat to our comfort is a stress. All kind of stress is not considered to be bad because it helps people to perform well. In academics, stress is unavoidable among students, and it influence students' performance in all academic activities. Academic stress plays a major role in determining the mental health of students. Academic stress among secondary school students has been a topic of interest for many years. Students experience high stress at predictable times each semester due to academic commitments, poor study skills, and competition among peer group, high parental expectations and lack of time management skills. When stress is perceived negatively or becomes excessive, it can affect both health and academic performance. Academic stress is the anxiety and stress that comes from schooling and education. There is studying, homework, tests, labs, reading, and quizzes. There is the stress of doing all of the work, balancing the time and finding time for extra-curricular activities. Academic stress is especially hard on school students who are often living away from home for the first time. Teachers expect work to be completed on time. Students may underestimate the amount of time it takes to complete reading and writing assignments, to projects of their study. Keinan and Perlberg (1986) argue that the feelings of frustration, anxiety, and depression are among the potential consequences of high degree of stress. Mckean et al. (2000) maintain that stressors alone do not produce anxiety, depression or tensions. Instead, the interaction between stressors and the person's perception and the reaction to these stressors cause stress.

Academic stress among students have long been researched on, and researchers have identified stressors as too many assignments, competitions with other students, failures and poor relationships with other students or lecturers (Fairbrother & Warn, 2003). Academic stressors include the student's perception of the extensive knowledge base required and the perception of an inadequate time to develop it (Carveth et al, 1996). Students report experiencing academic stress at predictable times each semester with the greatest sources of academic stress resulting from taking and studying for exams, grade competition, and the large amount of content to master in a small amount of time. When stress is perceived negatively or becomes excessive, students experience physical and psychological impairment. Methods to reduce stress by students often include effective time management, social support, positive reappraisal, and engagement in leisure pursuits. The pressure to perform well in the examination or test and time allocated makes academic environment very stressful (Erkutlu & Chafra, 2006).

Yoga, a practice of controlling the mind and body, is an ancient art that began in India over thousands of years ago. Yoga is a systematic process of spiritual unfolding. The path of yoga teaches individuals how to integrate and heal their personal existence (Das, 2008). Since yoga involves breath control, meditation and physical postures, it is supposed to increase the vitality of the human body, help with concentration, calm the mind, and improve common physical ailments. Yoga is an art in all its aspects, from the most practical to the highest. Yoga is also considered as a full-fledged science. The science of yoga consists of acquiring knowledge through observation and experiment. Yoga through its techniques of meditation, asana and pranayama yields a positive effect in the management of stress in adolescents (Milada, et al., 1994).

As a relaxation technique, meditation is essentially a restorative exercise for the mind. By constant meditation, one slowly gains knowledge of the self and gets freed from bondages, not merely the external ones, but in one's inner consciousness. Meditation is the act of focusing one's thoughts or engaging in self – reflection or contemplation. Some people believe that, through deep meditation, one can influence or control physical and psychological functioning and the course of illness. The ultimate goal of life is salvation and this, the scriptures say, is attained through knowledge of the ultimate truth of the self and its place in the cosmic self, gained through meditation. There is growing evidence showing that meditation can make people healthier and happier. Transcendental meditation reduces stress (Michaels et al., 1992). Keeping in view of the significance and relevance of yoga in one's life, the researcher has made an attempt to experiment it in practical life so as to study and analyze its effects concretely.

NEED AND SIGNIFICANCE OF THE STUDY

In today's highly competitive world, students face various academic problems including exam stress, disinterest in attending classes and inability to understand the subject. Academic stress is the feeling of anxiety or apprehension over one's performance in the academic activities. It can lead to students being unable to perform to the best of their abilities in examinations. At school there is a range of academic pressure feel, derived from a need for perfection, worry over grades, parental pressure, competition, sports, or a tough class load. The nervous breakdowns, panic attacks, burnouts, and depression are also apparent in many younger students. The same situation is not always stressful for all people, and all people do not undergo the same feelings or off-putting thoughts when stressed. Students were considered to be the future pillars who take the responsibilities to take our country to the

next phase they should be in better way. Several researches showed that yoga and meditation reduce academic stress among high school children. To know the efficacy of yoga and meditation on academic stress, the present study was carried out.

A good amount of literature is available on academic stress and its related factors of school students. But empirical studies relating to efficacy of yoga and meditation on academic stress in Indian students are very few, if any. There are wide differences in socio-economic and cultural aspects of a developing country like India and that of the developed countries in the West. The findings obtained from western students may not be directly applicable to Indian students. Thus, there are certain lacunae in the literature pertaining to yoga and meditation in relation to academic stress on Indian students. Therefore, a study on yoga and meditation in relation to academic stress on Indian students becomes an important area of research for educators, counselors, educational and school psychologists.

Against this backdrop the present study examines whether there is an effect of yoga and meditation on the academic stress among adolescent students. With this background, the present study was conducted with the following objective

OBJECTIVE

The main objective of the study was to assess the effect of yoga and meditation on Academic stress of High school students.

HYPOTHESES

- Pre and post interventional scores on academic stress would differ significantly in high school students.
- Yoga and meditation would significantly reduce academic stress in the areas of personal inadequacy, fear of failure; inter personal difficulties, Teacher Pupil Relations and Inadequate Study Facilities among high school students.

METHOD

Sample

Sample of the study consisted of 60 boys and girls of various schools in Tirupati in the age group of 12-15 years. Technique of simple randomization was employed for the selection of the subjects In order to collect the details regarding the various aspects related to the present investigation; personal data sheet and academic stress scale were administered.

Tools

Each subject in the sample was administered the following tests.

1. Demographic data sheet
2. Academic stress scale (Sreenivas and Kumar, 1999)

Instructions pertaining to tool were given in Telugu, the mother tongue of the subjects and the responses were noted by the investigator. In order to verify the information pertaining to the subject, the knowledgeable persons like school teachers were contacted. A test-retest correlation on 20 individuals with an interval of 15 days was found to be 0.82 for academic stress

VARIABLES STUDIED

I. Independent variable

Yoga

II. Dependent variables

Academic Stress

Assessments

Academic stress scale was used to identify the academic stress level of the students. It was done before the start of experiment and considered as a pre test score. Yoga and meditation module was used as an intervention treatment for the experimental group for an hour daily in the morning for six weeks. After completing the yoga and meditation module again academic stress of the students were assessed to find out the effect of yoga and meditation module on academic stress of the students and considered the scores as a post test scores.

Intervention

A yoga and meditation module was administered daily for an hour in the morning for all the 60 students for six weeks. Same academic stress scale was administered for all the sixty students as a post-test.

STATISTICAL ANALYSIS

To study an effect of yoga and meditation on academic stress and the Means and SDs of the scores were calculated. To find out whether there are any significant differences between pre and post interventional mean scores the data was subjected to 't' test.

RESULTS AND DISCUSSION

Table-1. Effect of Yoga on Academic Stress.

Variables	Pre test scores		Intervention Yoga	Post test scores		't' values
	Mean	SD		Mean	SD	
Academic Stress	81.19	15.34		63.24	12.18	2.68*

@ = Not significant
 * = Significant at 0.05 level.
 ** = Significant at 0.01 level.

The first hypothesis stated that Pre and post interventional scores on academic stress would differ significantly in high school students.

It is evident from the table-I that the obtained "t" value of 2.68 is significant at 0.05 level for academic stress implying that yoga has significant influence on academic stress. As the 't' value is significant the first hypothesis, which stated that Pre and post interventional scores on academic stress would differ significantly in high school students, is accepted as warranted by the results.

When we take the means into consideration students before practicing yoga have high academic stress (M=81.19) and after practicing yoga for eight weeks the students experienced low academic stress (M=63.24), which indicates that the academic stress of the students was reduced by yoga and meditation practice. The significant difference has been shown of mean score at 0.05 level between pre test and post test of Academic stress of the high school students. It indicates that; the Yoga exercises reduced the academic stress of the students.

Table-2. Effect of Yoga on five Areas of Academic Stress.

Areas of Stress	Pre test scores		Intervention Yoga	Post test scores		't' values
	Mean	SD		Mean	SD	
PI	18.18	5.39		12.42	5.67	5.62**
FF	17.34	6.46		10.38	4.97	6.36**
IPD	16.38	5.98		11.58	5.36	4.54**
TPR	17.16	4.62		16.24	4.64	1.05@
ISF	12.23	4.31		12.66	4.78	0.50@

@ = Not significant
 * = Significant at 0.05 level.
 ** = Significant at 0.01 level.

Areas of Stress

PI- Personal Inadequacy
FF- Fear of Failure
IPD- Interpersonal Difficulties
TPR-Teacher Pupil Relations
ISF- Inadequate Study Facilities

The second hypothesis stated that Yoga and meditation would significantly reduce academic stress in the areas of personal inadequacy, fear of failure, inter personal difficulties, Teacher Pupil Relations and Inadequate Study Facilities among high school students

It is evident from the table-II that the obtained "t" value of 5.62 for personal inadequacy, 6.36 for fear of failure, 4.54 for inter personal difficulties are significant at 0.01 implying that yoga has significant influence on academic stress in the areas of personal inadequacy, fear of failure and inter personal difficulties. As the 't' values are significant the second hypothesis, which stated that yoga and meditation have significant influence on academic stress in the areas of personal inadequacy, fear of failure, inter personal difficulties, Teacher Pupil Relations. And Inadequate Study Facilities is accepted with regard to personal inadequacy, fear of failure and inter personal difficulties as warranted by the results.

The findings of the present study revealed that the students after practicing yoga and meditation module performed better in academics and their academic stress has come down in the areas of personal inadequacy, fear of failure and inter personal difficulties. The results

are corroborated with the earlier studies, which found that meditation, practiced over long periods, produces definite changes in perception, attention, and cognition (Sahasi et al., 1989). Other researchers found that Transcendental Meditation improves and enhances problem-solving ability and reduces academic stress (Kember, 1985; Nagarathna and Nagendra, 1995).

The reason might be that by practicing yoga and meditation, a child reaches a state of mental equanimity, where responses to favorable or unfavorable external events are well under the individual's control, and responses are moderate in intensity. Yoga through its techniques of meditation, asanas, and pranayama yields a positive effect in the management of stress in adolescents. These two practices along with physical postures (asanas), devotional sessions, and lectures on the theory and philosophy of yoga were focused to bring about an improvement in the steadiness of school students. This improvement was due to improved eye-hand coordination, attention, concentration, and relaxation. In general, yoga has a lot of physical benefits which include: Increased muscle tone and strength, balanced metabolism, improved cardio and circulatory health, injury protection, improved athletic performance, improved respiration, improved energy, improved vitality, weight reduction, sleep inducing, relaxes the mind which aids in stress reduction which indirectly reduced the academic stress in high school students.

REFERENCES

1. Carveth, J.A., Gesse, T., & Moss, N. (1996). Survival strategies for nurse-midwifery students. *Journal of Nurse-Midwifery*, 41(1), 50-54.
2. Das, S. (2008). The 8 limbs and 4 types of yoga: The spiritual side of yoga. Retrieved from http://hinduism.about.com/od/meditation_yoga/a/yoga.htm
3. Erktulu, H., V., and Chafra, J. (2006). Relationship between leadership power bases and job stress of subordinates: *Manage. Res. News* 29(5): 285-297.
4. Fairbrother K., and Warn, J. (2003). Workplace Dimensions, Stress and Job Satisfaction, *J. Managerial Psychol.* 18(1): 8-21.
5. Keinan, G. and Perlberg, A. (1986). Sources of stress in Academe: The Israeli Case. *Higher Education*, Vol. 15, No. 1/2, 73-88
6. Kember P. (1985). The Transcendental Meditation technique and postgraduate academic performance: A short report on controlled and longitudinal pilot study. *British Journal of Educational Psychology*; 55:164-6.
7. McKean, M., Misra, R., West, S., and Tony, R. (2000). *College Student Journal*. Vol. 34(2), 236-245.
8. Michaels, R.R., Huber, M., J., McCann, D., S. (1992). Evaluation of Transcendental Meditation as a Method of reducing stress. *Science*; 1242
9. Milada, K. (1994). Positive influence of yoga exercises for the Adolescents. *Medicine, Mind and Adolescence*, 8(2).
10. Nagarathna, R., Vani, P., R., Nagendra, H., R. (1997). A combination of focusing and defocusing through yoga reduces optical illusion more than focusing alone. *Indian Journal of PhysiolPharmacol*; 41:179-82.
11. Sahasi, G., Mohan, D., and Kacker, C. (1989). Effectiveness of yogic techniques in the management of anxiety. *Journal of Personality and Clinical Studies*; 1:51-5.