

DEVELOPMENT AND VALIDATION OF YOGA VIDEO PACKAGE AND ITS EFFECTIVENESS ON DEPRESSION, ANXIETY AND STRESS OF SCHOOL TEACHERS

By

B. TAMIL SELVI *

S. THANGARAJATHI **

* Assistant Professor, (Biological Sciences) in Hindusthan College of Education, Avinashi Road, Coimbatore.

** Assistant Professor, Department of Educational Technology, Bharathiar University, Tamilnadu.

ABSTRACT

Teaching once was considered as a noble job but, within the last decade it has become an increasingly stressful profession for school teachers. Increased work load, insufficient salary package, fast changing curriculum, increase in the responsibilities of the students, modern fast mechanical life, conflicts with the colleagues and with higher authorities have made the teaching profession more stressful. This stress ultimately gives rise to many other psychological problems like depression, anxiety, etc. A lot of physiological problems like changes in blood pressure, hypertension, obesity, diabetes, heart problems, respiratory problems, eating disorders, sleep disorders, etc. arise as a result of job stress. This will finally affect their work efficiency and they also tend to pour down these effects on the school children. It also leads to miserable classroom environment, thereby affecting the learning process of the children. The long search for a natural healing remedy for psychological problems like Depression, Anxiety and Stress finally lead to a scientifically proven technology called YOGA. Yoga is a science that has been practiced for thousands of years and is said to be a magical natural remedy for all psychological maladies. So an attempt has been made in this study to use this Yogic Technology, on school teachers. A special video package has been designed based on the above said psychological problems of school teachers and it is tested on them. A significant reduction in Depression, Anxiety and Stress was found in school teachers after yoga training. So it is suggested to include a short Yoga training for future school teachers which will help them manage their psychological problems and improve their Professional Excellence.

Keywords: Video Package, Yogic Technology, Depression, Anxiety, Stress.

INTRODUCTION

Teachers mold the lives that they influence. Everything that has been learnt from teachers remains with their students throughout life. Teachers that break down barriers and reach into the souls of the students that they are responsible for do not get the recognition or gratitude they have earned. Many teachers are exhausted from their workload and responsibilities. They have their own families, financial and life stresses that challenge them along with everyone else. Teachers are expected to be mentally healthy but the problems of teachers are more than what it was in the past. In addition to the loss of special recognition, the profession has been infested with a number of other problems, such as enormous rise in the work load, lack of security of service, too much domination by the political bosses under local

board managements, growing indiscipline among the students, delayed promotions and poor school climate. The teacher has to cope with so many stressful and frustrating situations which results in mental ill health causing depression, anxiety and many more health maladies. A teacher, who is not mentally happy, will breed discontentment and dissatisfaction which will have a long term effect on the pupils. Therefore, mental health of teachers is a crucial issue to be tackled by educationists and all those concerned with the teaching profession. The long search for a natural healing remedy for psychological problems finally lead to a scientifically proven technology called YOGA. Yoga is a science that has been practiced for thousands of years and is said to be a magical natural remedy for all psychological maladies. So an attempt has

been made in this study to use this Yogic Technology, on school teachers by developing a special video package on Yoga to reduce and prevent the psychological problems like depression, anxiety and stress of school teachers.

Statement of The Problem

Working conditions of school teachers are not what they were in the past. From the teacher's point of view, they are discontented and struggling hard to maintain themselves. Teachers are dissatisfied and stressed at work resulting loss of teaching efficiency in the classroom. As an individual, a school teacher tries his best to satisfy his social, physical and mental needs and to improve the professional efficiency. But these needs cannot always be adequately satisfied due to certain circumstances either created at his work place by the head of the institution, his colleagues or by his family or by the society in which he lives. In such a position he gets frustrated and this produces tension and stress. Stress will be automatically leading to Depression and Anxiety also. If the teacher suffers from such problems he cannot contribute sufficiently to the process of education which will have an adverse effect on his efficiency. Since Yoga is considered to be a proven tool for all psychological and physiological maladies, Yoga is tried as a preventive and curing measure for all mental maladies of school teachers. So the investigator conducted an experimental study entitled as "Development and Validation of Yoga Video Package and its Effectiveness on Depression, Anxiety and Stress of School Teachers."

Objectives of The Study

The objectives of this study can be listed down as follows

- To develop a Yoga video package for school teachers specially based on their psychological problems like Depression, Anxiety and Stress.
- To find out the effectiveness of Yoga training through video package on Depression of school teachers.
- To find out the effectiveness of Yoga training through video package on Anxiety of school teachers.
- To find out the effectiveness of Yoga training through video package on Stress of school teachers.
- To find out the effectiveness of Yoga training through

video package on Depression, Anxiety and Stress of school teachers with respect to the following Personal Variables Sex, Age, Teaching experience, Previous yoga experience and Surgery undergone.

- To find out the effectiveness of Yoga training through video package on Depression, Anxiety and Stress of school teachers with respect to the following Familial Variables like Presence of children, Family annual income, Family type and Residence.

Research Procedure

Since the major objective of the study is to find out the effectiveness of Yoga training through video package on Depression, Anxiety and Stress of school teachers, the investigator decided to use Quasi experimental design to find out the Effectiveness of Yoga Video Package. The sample was selected by "group at hand" sampling technique. The willing school teachers of Shree Bal Devadas Kikani Higher Secondary School in Coimbatore were considered as the sample. The sample size was 36. The variables selected for the study were classified under three divisions. They are,

- Independent variable.
- Dependent variable and
- Intervening variable.

Independent variable

The Yoga video package is the Independent variable.

Dependent variables

- Depression
- Anxiety
- Stress

Intervening variables

The Intervening variables are again subdivided into two sub headings. They are as follows

- Personal variables
- Familial variables.

Personal variables

The Personal variables are as follows

- Sex
- Age

- Teaching experience
- Previous yoga experience
- Surgery undergone

Familial variables

Familial variables are as under

- Presence of children
- Family annual income
- Family type
- Residence.

Tools used for the study

Three tools are used in this study. They are

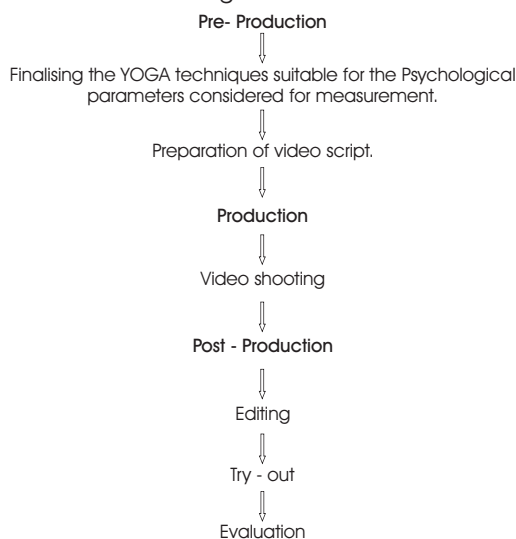
- Yoga Video Package for school teachers developed and validated by the investigator
- Depression Anxiety Stress Scale developed by Lovibond. (DASS – 21).
- Personal Information Sheet developed by the investigator.

Development of Yoga Video Package

The process of developing the YOGA video package was done in three steps. The steps involved in this process are illustrated in the flow chart below.

- Pre-production
- Production
- Post – production.

Chart Showing The Steps Involved in The Development and Validation of Video Package



The necessary YOGA techniques needed for the study and which can be easily practiced by school teachers were finalized with the guidance of Yoga experts. The finalized Yoga Video Package was planned to include some of Yogasanas, Pranayama practices and a Meditation which will take approximately half-an-hour to practice. The yoga practice will be starting with Surya Namaskar which consisted of 12 steps. This will be followed by six Yogasanas ending with one relaxing asana, which is followed by Pranayama. The Pranayama is done in two steps and it is followed by a Meditation. The audio and video script was prepared and the video shooting was done.

Depression Anxiety Stress Scale (DASS)

DASS, the Depression Anxiety Stress Scales, developed by Lovibond is made up of 42 self report items to be completed over five to ten minutes, each reflecting a negative emotional symptom. Each of these is rated on a four-point Likert scale of frequency or severity of the participants' experiences over the last week with the intention of emphasising states over traits. These scores ranged from 0, meaning that the person believed the item "did not apply to them at all", to 3 meaning that the person considered the item to "apply to them very much, or most of the time". It is also stressed in the instructions that there are no right or wrong answers.

The sum of the relevant 14 items for each scale constitutes the participants' scores for each of Depression, Anxiety and Stress. The order of the 42 items has been randomised so that items of the same scale are not clustered together. The item summary of DASS 42 is given in Table 1.

Depression Anxiety Stress Scale-21 (DASS-21)

In addition to the basic 42-item questionnaire, a short version, the DASS21, is available with 7 items per scale. The Depression Anxiety Stress Scale-21 was derived from 42 DASS. It provides data about three negative emotional states: Depression, Anxiety and Stress (Lovibond & Lovibond 1995a). These three emotional states comprise the scale's

S.No.	Name of the scale	Item number	No. of items
1	Depression	3, 5, 10, 13, 16, 17, 21, 24, 26, 31, 34, 37, 38, 42	14
2	Anxiety	2, 4, 7, 9, 15, 19, 20, 23, 25, 28, 30, 36, 40, 41	14
3	Stress	1, 6, 8, 11, 12, 14, 18, 22, 27, 29, 32, 33, 35, 39	14
			Total = 42

Table 1. Item Summary of DASS 42

three 7-item subscales. The scale was originally developed to assess anxiety and depression while maintaining maximum discrimination between the two constructs. The Stress scale was added as a result of factor analyses finding a third subscale. The depression scale is characterized by a loss of self-esteem and incentive, and is associated with a low perceived probability of attaining life goals. The anxiety scale assesses the links between the states of anxiety and the acute responses of fear. The stress scale measures arousal and tension with a low threshold for becoming upset or frustrated (Lovibond & Lovibond 1995). The item summary of DASS 21 is given in Table 2.

This tool is a self report or interview format. The 21 items consist of statements referring to the past week and each item is scored on a 4-point scale (0 = Did not apply to me at all, to 3 = Applied to me very much or most of the time). Subscale scores for the DASS-21 are calculated as the simple sum of the responses to the seven items and then the scores are multiplied by 2. Therefore scores on each subscale range from 0 to 42. Higher scores indicate greater levels of distress. Interpretation of the scores can be based on raw scores (0-9 = normal, 10-13 = mild, 14-20 = moderate, 21-27 = severe, and >28 = extremely severe), percentile scores (0-78 = normal, 78-87 = mild, 87-95 = moderate, 95-98 = severe, and 98-100 = extremely), or by converting to z-scores. The DASS-21 provides a quicker more feasible scale than the full DASS. The reported time to administer is less than 10 minutes. So for the convenience of the school teachers, DASS 21 is used for this study.

Methodology

After the completion of the preparation of the Yoga video package, it is checked for its validity and reliability with the help of Yoga experts, Computer personnel and school teachers. The content, the clarity of video and audio and the usage of the video package were discussed with the above personnel and the validity and reliability of the Yoga Video Package was checked and confirmed. After validating the Yoga video package, the school teachers were asked to

S.No.	Scales	Item numbers
1	Depression	3,5,10,13,16,17,21
2	Anxiety	2,4,7,9,15,19,20
3	Stress	1,6,8,11,12,14,18

Table 2. Item Summary of DASS 21

practice them for 48 days and the levels of Depression, Anxiety and Stress was measured before and after the Yoga practice. For the study 't' scores were computed to compare the significant difference between the pre-test and post-test score for Depression, Anxiety and Stress of the sample. After analysis of the data, the results were discussed and broader findings and conclusions arrived are given below.

Findings, Results and Interpretations

The pre and post-test mean scores and 't' values of Depression, Anxiety and Stress of the school teachers are given in Table 3. The results of significant difference with respect to Personal and Familial variables of the school teachers are given in Tables 4 and 5. The results of those findings are as follows

- There is significant difference between the pre – test and the post – test mean scores of Depression, Anxiety and Stress.
- There is no significant difference between the pre – test and post – test mean scores Depression, Anxiety and Stress with respect to their personal and familial

Variable	Phase	N	M	DM	SD	t	Level of significance at 0.01
Depression	Pre-yoga	36	14.528	9.611	6.583	8.76	Significant
	Post-yoga		4.917				
Anxiety	Pre-yoga	36	15.028	9.944	6.87	8.69	Significant
	Post-yoga		5.028				
Stress	Pre-yoga	36	15.806	9.639	6.49	8.63	Significant
	Post-yoga		6.111				

Table 3. Change in post test score of Depression, Anxiety and Stress due to Yoga among school teachers

S.No.	Variables	Personal variables				
		Sex	Age	Teaching Experience	Previous yoga Experience	Surgery undergone
1	Depression	NS	NS	NS	NS	NS
2	Anxiety	NS	NS	NS	S	NS
3	Stress	NS	NS	NS	NS	NS

Table 4. Summary of the Results of Test of Significant Difference in Depression, Anxiety and Stress of School Teachers With Respect To Their Personal Variables

S.No.	Psychological Variables	Familial variables			
		Presence of Children	Family income	Family type	Residence
1	Depression	NS	NS	NS	NS
2	Anxiety	NS	NS	NS	NS
3	Stress	NS	NS	NS	NS

S - Significant NS - Not Significant

Table 5. Summary of the Results of Test of Significant Difference in Depression, Anxiety and Stress of School Teachers With Respect To Their Familial Variables

variables of the school teachers except for one. There is significant difference between anxiety and previous yoga experience.

Discussion

Based on the above findings the results were discussed and the final interpretations were given below.

Depression

The present investigation made a clear finding of a reduction in depression of the school teachers after 48 days of yoga practice. This present finding can be reasoned out on the following grounds (Figure 1).

Yoga practice can be a way to help people to deal with depression. Yoga can lift the mood and disposition, by focusing the attention on the way the emotions are expressed in the body. Negative feelings that are blocked or suppressed may come to the surface during certain hatha Yoga poses, which moves negative energy from "stuck" places in the body. Through the practice of Yoga, one becomes aware of the interconnectedness between the emotional, mental and physical levels.

Most commonly suggested treatment by doctors for depression is intake of antidepressants. From Yogic perspective, antidepressants are simply tools, not good, not bad. What is crucial is to use them wisely in times of need and stay away from them if not needed. There are people who are depressed without knowing it. Both men and women may even avoid treatment because of embarrassment, seeing themselves as weak individuals or believing that not much can be done to help them. Since stress is a huge contributor to depression, part of Yoga's

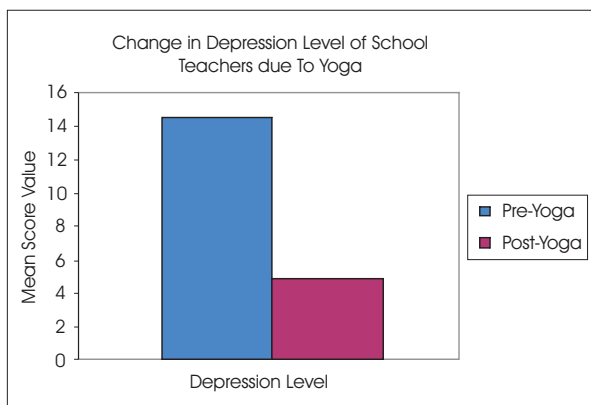


Figure 1. Change in Depression level of School Teachers due to Yoga

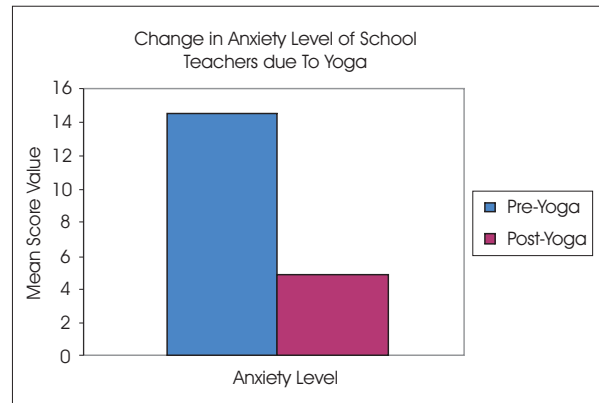


Figure 2. Change in Anxiety level of school Teachers due to Yoga

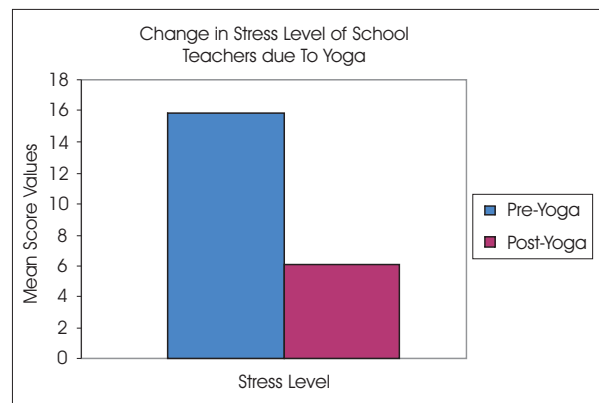


Figure 3. Change in Stress level of School Teachers due to Yoga

effectiveness is its proven ability to alleviate tension, lift mood and help to lower the level of the stress hormone - cortisol. Cortisol is a steroid hormone, produced by the adrenal gland. It is released in response to stress.

(<http://themedicalbiochemistrypage.org/images/adrenalsteroidsynthesis.jpg>)

Low brain levels of the neurotransmitter GABA (Gamma – Amino Butyric Acid) are often found in people with depression. GABA is the chief inhibitory neurotransmitter in the mammalian central nervous system. It plays a role in regulating neuronal excitability throughout the nervous system. Yoga can boost GABA. Especially, Kabalabhathi Pranayama from the Yoga video package play a major role in reducing depression. Meditation practice increases serotonin levels which reduces depression in turn. Serotonin is also a neurotransmitter. It is primarily found in the gastrointestinal (GI) tract, platelets, and in the central nervous system (CNS) of animals including humans. It is a well-known contributor to feelings of well-being; therefore it

is also known as a "happiness hormone" despite not being a hormone.

Preliminary research out of the Boston University School of Medicine and Harvard's McLean Hospital found that healthy subjects who practiced yoga for one hour had a 27 percent increase in levels of GABA compared with a control group that simply sat and read for an hour. This supports a growing body of research that's proving Yoga can significantly improve mood and reduce the symptoms of depression and anxiety. The finding that Yoga helps in reducing depression is in agreement with the finding of the studies by Shapiro (2007), Finucaine and Mercer (2006) Sharma et. al. (2006).

Anxiety

In the present investigation the school teachers experienced a reduction in their Anxiety levels as a result of 48 days of Yoga practice, which included yogasanas, pranayama and meditation. This present finding can be reasoned out on the following grounds (Figure 2).

Considerable evidence exists for the place of mind body medicine in the treatment of anxiety disorders. All Yoga techniques, especially Pranayama helps in reducing anxiety. Breathing affects the heart, brain and nervous system, with a direct correlation between the breath and anxiety or well-being. When stressed, the breath is shorter, more frequent and quite shallow. This breathing pattern maintains a level of arousal. Slower and deeper breathing results in a more relaxed state via autonomic reflexive stimulation and decreases the partial pressure of carbon dioxide in the lungs and bloodstream. With a corresponding increase in the pH of the blood (pH is the abbreviation for power of the concentration of the Hydrogen ion), it becomes less acidic and more effective blood oxygen synthesis occurs. There are also benefits in metabolism and brain function. For example, levels of noradrenaline, a compound that functions as a hormone and as a neuro-transmitter in the nervous system, actually increase with a deeper breath. Finally all these changes lead to a more relaxed state thereby reducing anxiety. Suryanamaskar, Sasangasana, Vakrasana and meditation of the yoga video package helps in reducing anxiety.

The finding that Yoga helps in reducing Anxiety is in tune with

the findings of the studies by Gupta (2006) Kirkwood et. al. (2005).

Stress

In the present study the school teachers faced a remarkable reduction in their stress level after the Yoga practice for 48 days. This present finding can be reasoned out on the following grounds (Figure 3).

Stress is an imbalance at the mental, physical, or emotional level. According to Yoga, one becomes a victim of stress, not on account of a stressful situation, but on account of one's inability to cope with a changing condition. Stress hazards decrease the quality of life and can lead to many ailments, such as heart attacks, peptic ulcers, arthritis, allergies, sexual problems, bowel disorders, and so on. Stress sends the entire physical system into overdrive. The muscles tense, the heart beats faster, breathing patterns change, and if the cause of stress isn't discontinued, the body secretes more hormones that increase blood sugar levels, raising blood pressure (Peeke et. al. 2000). Yoga is one of the few stress-relief tools that have a positive effect on all the body systems involved. Recognizing the detrimental effects of stress, especially in the area of heart disease, the preventive and rehabilitative cardiac center at Cedars-Sinai Medical Center in Los Angeles began offering yoga to their patients more than 10 years ago.

The Yogic approach towards stress is not to deal with the manifest symptoms, such as fear, anger, palpitation, sleeplessness, etc; but rather eliminate the root cause. Yoga balances, harmonizes, and brings integration between physical and mental health. Yogic methods of stress management include – maintaining the physical body through the practice of Asana, awakening the vital energy through Pranayama, and relaxation through Meditation.

Any yoga exercise especially meditation will help relieve stress by keeping the body healthy through stretching. When stressed, tension is stored in the body giving a feel of tightness and often causing pain. The intense stretching of yoga releases tension from problem areas, including the hips and shoulders. Physical activity is good for relieving stress, and this is particularly true of Yoga. Because of the concentration required, the daily troubles, both large and

small, seem to melt away while doing Yoga. This provides a much-needed break from stressors, as well as helping put things into perspective. Yoga requires the practitioner to take long deep breaths, conscious relaxation, and concentration, which has been proven to decrease the level of stress hormones and cortisol produced by adrenal gland in the blood. Yoga also releases endorphins, a neuro transmitter which is found naturally in the brain with pain relieving property, thereby making one feel better.

The finding that Yoga helps in reducing Stress is on the line of the findings of the studies by Michalsen et.al.(2005), Forbes & Pekala, (1993), Prerost, (1993), Kim & Tennant, (1993), Toivanen et. al., (1993), Latha & Kaliappan, (1991), Aivazyan, et al., (1988), Carrington, (1993).

The results of the present investigation show that in case of Anxiety, Yoga does not produce the same reducing effects among school teachers with respect to the variable "previous Yoga experience". It is also observed that Anxiety is highly reduced among the school teachers who have undergone previous yoga training than who have not undergone previous Yoga training. In the present study less number of teachers only has undergone Yoga training previously, but it is human nature that people tend to discontinue the training due to the work pressure and other family commitments. Hence no significant difference was noticed between the two groups in all the physiological variables, biochemical variable and all the psychological variables except the variable Anxiety. In general, Yoga experts and practitioners say that Yoga always produces the same effects on any group of people of any type, either male or female, or any age group, etc. In this study some slight modulations were seen in the effects of Yoga on the differently aligned groups in the different psychological variables with respect to the Personal and Familial variables of school teachers. This is due to the fact that the study was being conducted for a short period of time and if the study was continued to a longer period, say for six months the results would have been appropriate that the Yoga producing the same effects on any type of group of people. This has been considered as one of the limitations of the present study.

Conclusion

The mean scores of the psychological variables - Depression, Anxiety, Stress and Adjustment problems including all its dimensions in the post-test are lesser than that of the pre-test ensuring a reduction in them after Yoga. Hence it is concluded that Yoga helps in reducing depression, anxiety and stress among school teachers. As illustrated in Figures 1, 2 and 3, yoga produces the same reducing effects of Depression, Anxiety and Stress on all school teachers with respect to the intervening variables, except for Anxiety with respect to previous yoga training variable. It is also observed that Anxiety is highly reduced among the school teachers who have undergone previous yoga training than who have not undergone previous yoga training.

Educational Implications and Suggestions

The state of psychological equilibrium in school teachers is of great concern. As a truth, equilibrium is the most delicate unstable state and gets disturbed even by a slight disturbance in its components. It is due to this reason that mental malady is spreading like an epidemic in the complex modern society, where a vast percentage of population suffers from mental ill health. The teaching profession is acknowledged as the most stressful profession. Today teachers can no longer resist the epidemic of mental malady. They have been thrown into the ocean of complexities of modern society and are supposed to sail with their traditional rudders of morale and status. They are expected to be at the same stage of performance, devotion and commitment which they are supposed to live by the rules of the society. These conflicts along with many other factors mentioned, have affected the teachers' mental health. This affected mental health can be healed by Yoga.

Mental health and physical energy are difficult to quantify, but virtually everyone who participates in yoga over a period of time reports a positive effect on outlook and energy level. Many of the healing effects of Yoga are clinically verified. However, one of the most important benefits of Yoga is its application in relieving stress, fatigue, invigoration and vitality and its anti-aging properties and its application for relaxation therapy. Yoga can be considered

as the most effective therapy for many physiological and psychological ailments. Regular practice of *Asanas*, *Pranayama* and Meditation mentioned in this video package can help some physiological ailments such as diabetes, blood pressure, digestive disorders, arthritis, arteriosclerosis, chronic fatigue, asthma, varicose veins and heart conditions. Laboratory tests have proved the Yoga practitioner's increased abilities of consciously controlling autonomic or involuntary functions, such as temperature, heartbeat and blood pressure. Research into the effects of yogic practices on HIV is currently underway with promising results. Best of all, Yoga is highly therapeutic. Most of the physiological ailments are proven to be relieved, reversed and even healed through the practice of Yoga. Certain psychological illnesses such as depression, anxiety and stress can be also treated by Yoga.

The study has indicated that Yoga training produces positive effects like reduction in depression, anxiety, stress, adjustment problems and increasing the subjective well being of the school teachers. Yet an attempt is made to suggest a few measures for the betterment of physical and mental health of the school teachers based on the findings of the present study as shown below.

- Government should take necessary steps to introduce Yoga in schools for both teachers and students
- Yoga should be included in the curriculum compulsory.
- Yoga trainer should be appointed separately for each school.
- Yoga Training courses for the school teachers should be organized by the school board.
- Multimedia packages and video packages on yoga and meditation may be prepared and given to all school teachers and students.
- Yoga training should be made as mandatory to the student teachers in B.Ed colleges and teacher training institutions so that when they come out as teachers they will be well prepared to face all sorts of problems arising in their profession and will be coping up of the stress caused in their profession.

References

- [1]. Aivazyan, T A., Zaitsev, V P., Salenko, B B., Yurenev, A P, & Patrusheva, I. F. (1988). Efficacy of relaxation techniques in hypertensive patients. Fifth joint USA-USSR symposium on arterial hypertension. *Health Psychology*, 7:193-200.
- [2]. Carrington, P. (1993). Modern forms of meditation. In P. M. Lehrer & R. L Woolfolk (Eds.), *Principles and practice of stress management (2nd ed.)* (pp. 139-168). New York: The Guilford Press.
- [3]. Finucaine, A, & Mercer, SW. (2006). An exploratory mixed methods study of the acceptability and effectiveness of mindfulness-based cognitive therapy for patients with active depression and anxiety in primary care. *BMC Psychiatry*, 6:14.
- [4]. Forbes, E.J. & Pekala, R.J. (1993). Psychological effects of several stress management techniques. *Psychological Reports*, 72: 19-27.
- [5]. Gupta, N., Khera, S., Vempati, RP, Sharma, R, & Bijlani, RL. (2006). Effect of yoga based lifestyle intervention on state and trait anxiety. *Indian Journal on Physiol Pharmacol*.50:41-47.
- [6]. Kim, J, & Tennant, LK. (1993). Effects of visualization and Danjeon breathing on target shooting with an air pistol. *Perceptual and Motor Skills*, 77: 1083-1087.
- [7]. Kirkwood, G., Rampes, H., Tuffrey, V., Richardson, J., Pilkington, K., & Ramaratnam, S. (2005). Yoga for anxiety: a systematic review of the research evidence. *British Journal on Sports Medicine*, 39: 884-891.
- [8]. Latha & Kalliappan KV (1991). Yoga, Pranayama, Thermal Biofeedback techniques in the Management of Stress and High Blood Pressure, *Indian Psychology*, 9, 36-46.
- [9]. Lovibond, S.H. & Lovibond, P.F. (1995). *Manual for the Depression Anxiety Stress Scales. (2nd. Ed.)* Sydney: Psychology Foundation. ISBN 7334-1423-0.
- [10]. Michalsen, A., Grossman, P, Acil, A., Langhorst, J., Ludtke, R., Esch, T., Stefano, G.B, & Dobos, G.J. (2005). Yoga reduces stress and anxiety among distressed women. *Medical Science Monitor*, 11: 555-561.
- [11]. Peeke PM, Chrousos GP. Hypercortisolism and Obesity. *Ann NY Acad Sci* 1995 Dec 29; 771:665-76. Epel ES, McEwen B, Seeman T, Matthews K, Castellazzo G, Brownell

KD, Bell J, Ickovics JR. Stress and body shape: stress-induced cortisol secretion is consistently greater among women with central fat. *Psychosom Med.* 2000 Sep-Oct; 62(5):623-32.

[12]. Prerost, F. J. (1993). A strategy to enhance humor production among elderly persons: Assisting in the management of stress. *Activities, Adaptation and Aging*, 17: 17-24.

[13]. Shapiro, D., Cook, I A, Davydov, D M, Ottaviani, C, Leuchter, A F, Abrams M.(2007). Yoga as a Complementary Treatment of Depression: Effects of Traits and Moods on Treatment Outcome. *Evid Based Complement Alternat Med.* 4: 493-502.

[14]. Sharma, VK., Das, S., Mondal, S., Goswampi, U, & Gandhi, A.(2006). Effect of Sahaj Yoga on depressive disorders. *Indian Journal on Physiology and Pharmacology*, 49: 462-468.

[15]. Toivanen, H., Lansimies, E., Jokela, V, & Hanninen, O. (1993). Impact of regular relaxation training on the cardiac autonomic nervous system of hospital cleaners and bank employees. *Scandinavian Journal of Work, Environment and Health*, 19(5), 319-325.

[16]. <http://themedicalbiochemistrypage.org/images/adrenalsteroidsynthesis.jpg>.

ABOUT THE AUTHORS

Mrs. B. Tamilselvi M.Sc., M.Ed., M.Phil, (Ph.D) is Assistant Professor (Biological Sciences) in Hindusthan College of Education, Avinashi Road, Coimbatore - 28. She has associated in submitting a project entitled "Effectiveness of Yoga Video Package on Certain Psychological Characteristics among School Teachers" along with her Ph.D research guide which was sanctioned and approved by "Centre for Educational Research", Madurai Kamaraj University, Madurai. She has developed a special yoga video package for school teachers. She has published five papers under Educational Psychology and Educational Technology in the national and international journals and presented papers under Education, Yoga and Biology in International Conferences and National seminars. She can be reached through E-Mail: g_tamilselvi@yahoo.co.in.



Dr. S. Thangarajathi M.Sc. M.A. M.Ed.Tech. Ph.D. is working as an Assistant Professor in the Department of Educational technology, Bharathiar University, Tamilnadu. Her area of Specialization is on Educational Psychology and Educational Technology. She has experience in developing CAI Packages and Instructional Video film. She has published more than fifteen papers in the National and International Journals. At present she is guiding seven Ph.D scholars. She may be reached via e-mail at thangam_rajathi@yahoo.co.in.

