

# Effect of Transcendental Meditation on the State of Stress of Office Workers

**Dr. ChintaHaran Betal\***

\*Assistant Professor, Dept. of Yoga,  
H N B Garhwal University, Srinagar, Uttarakhanda

**Email:** drcbetal@rediffmail.com

## Abstract

Currently stress among the office working population has become so chronic and wide that their psychophysical health and social transaction along with their household peace and security is now on the verge of extinction. In spite of pharmaceutical wonderful drugs, the problem has not yet been solved.

So, the present study was planned to investigate the effect Transcendental Meditation on the state of stress of office workers. In this study, a “**Two groups**”, “**multi level**”, “**Pre**” and “**Post**” research design was adopted. The sample of 60 male subjects was drawn from among the population who were working in various Govt. Offices and whose socioeconomic background and education were homogeneous. The total sample was divided in to two groups i.e., (1) Experimental (N=30) and (2) Control (N=30). The subjects of experimental group were exposed to the treatment of Transcendental Meditation for four months whereas the subjects of control group were not assigned any specified treatment. For comparison purpose, Fishers’ ‘T’ test was applied and to evaluate the effect of Transcendental Meditation (if any) on the state of stress, <.05 level of confidence was considered as a criterion of significant difference. The experiment was conducted at three stages i.e., pre-experimental, post Phase – I (after two months) and post Phase – II (after four months). Results confirmed that the subjects of experimental group who practiced Transcendental Meditation displayed significant reduction in their “state of stress” as compared to the subjects of control group.

Therefore, it is concluded that the Transcendental Meditation can be used as a potent means for alleviation of stress of office working population.

**Key words:** Stress, Psychogenic, Transcendental Meditation, Research Design.

---

## Introduction

The term ‘**stress**’ was coined by Hens Selye (1979) who defined stress “As a non specific response of the body to any demand made on it.” According to Morgan and his associates (1992), “Stress in many faceted process that occurs in us in response to events that disrupt or threaten to disrupt our physical or psychological functioning.” Doctors on the other hand defined stress as, “Any situation where there is imbalance between perception and expectations of an individual (Krishnamurthy, 1999, p.2). So stress is a psychogenic (emotion caused)

disorder which denotes psychophysical distress as a result of nervous strain in life and in a situation of stress an individual becomes confused, tense, irritate depressed, hostile to those closest to him, and feels, helplessness. Consistently general responses under stressful conditions lead to General Adaptation Syndrome (G.A.S).

It has been confirmed that ‘stress’ is responsible for a large number of psychophysical health problem in modern age and creates extra economic burden in all sections of population (Udupa, 2000). The most vulnerable section of society is the office working population. They are

often face stressful situations on account of (1) friction with boss (2) misbehavior and conspiracy of colleagues, (3) extreme pressure of work and information, (4) fear of frequent transfer, (5) lack of proper cooperation and coordination in official environment (6) delay or withholding of promotion, (7) lack of moral support, threat of self esteem in office and (8) salary related problems. Under these situations, office workers who are unable to release their day to day tension, gradually become the victim of severe stress which manifest in the form of behavior disorders, psychosomatic ailments, stress injuries, and other physical disturbances. This discordant and disintegrated psycho-physical functions often indulge them to many antisocial acts like destruction of national wealth, hostility, violence, aggression rape, theft, murder, homicide and suicide. Infact, these office working individuals are those segment of population who bear the important responsibilities of national and social well being. But due to severe stress victimization, they are ruining all possibilities of social welfare and national development. Therefore, if the situation is not controlled immediately, it will be dangerous and distressful for not only their personal life but also for the whole human existence.

Despite of wonderful pharmaceutical drugs, the problem of stress has not yet been alleviated. But recently, Meditation has open a new avenue for management of stress. In this respect, Transcendental Meditation is a most popular and widely used technique of producing profound beneficial effects on psychological and physiological health.

The word **“Transcendental”** means **“Going beyond”**. It is a technique to take the practitioner beyond the familiar level of wakeful experience to a state of profound rest (Jaggi, 1984). Transcendental Meditation (T.M), as

taught by His Holiness Maharishi Mahesh Yogi, is describe as “turning the attention inwards, towards the subtlest level of thought until the mind transcends the experience of the subtlest state of thought and arrives at source of thoughts” (Maharishi, 1969). Transcendental Meditation is purely a mental technique consists primarily of mentally repeating mantra; a sound with supposedly "special" qualities.

There is a substantial body of evidence on the efficiency of Yogic Meditation in the management of psychogenic problem. Rosenthal (1974) found the increment of self concept formation capacity through the practice of meditation. Carrington (1978) states that mediators reported many positive changes occurs in their lives, including more enjoyment of life, more energy, better sleep patterns and greater creativity. Alexander and Marks (1982) found behavioural change in inmates through Transcendental meditation. Crooks and Stein (1988) found that yogic meditation is the technique of altering consciousness in an efforts to achieve a state of tranquility, relax and inner peace. Gaur (1994) recorded positive changes in ego, super ego, self – concept formation capacity, self realization, ergic tension, reaction to frustration and CNS and ANS functions of meditators. Betal (2006) found the positive effect of Preksha meditation on emotional stability, adjustment, ego, super – ego and ergic tension of drug abusers. Kamakhya (2008) noticed a significant change in the stress and anxiety level who practiced Yoga nidra, Kozasa (2013) investigated the effect of meditation on brain functions and found better brain functions among the meditators as compared to the non meditating subjects. Betal (2013) examined the effect of Transcendental meditation on personally integration of adolescents and found positive results among the practitioners of meditation.

Viewing these positive aspects of meditation in managing psychogenic problems, present investigator selected the under stated research problem.

## **Methodology**

**Research Design** In order to investigate the effect of Transcendental Meditation on experimental group at different stages of experiment, a “two groups” and “multi—level” 'before' and 'after' strategy was adopted.

**Sample** A random sample of 60 male office workers with various age groups ranging from 26-30,31-35,36-40,41-45,46-50 and 51-55 was drawn from among the population who were working in the various government offices of Jabalpur city of Madhya Pradesh. They belonged to same socio-economic back ground. The total sample was grouped into two, each of 30 for experimental and control group. In this study, sample bore the characteristics of (1) uncertainty and under stimulation, (2) over loaded by information (3) threat about non achievement of physical well being or the satisfaction of the central needs, (4) failure for controlling ego, (5) failure to do mastery over ego, (6) self esteem danger, and (7) other esteem danger (Singh, 2002,PP.1,2).

**Test used:** To measure the state of stress, the 'stress scale' by Dr. M. Singh (2002) was used. Manual of Stress scale.

**Procedure of Data Collection:** Measurement at pre-experimental stage The aforesaid psychological test was administered on all the subjects of experimental and control group.

Experimental group was given the treatment of Transcendental Meditation. They practiced it for 45 minutes daily (morning) for four months regularly under the initiation and supervision of a trained teacher of Transcendental Meditation.

The subjects of control group was not assigned any special activity and they would continued with their daily routine normal activity.

All the subjects of both groups were retested on same psychological test at the end of two months and four months of their respective treatments.

**Statistical Design:** The underlying statistical design was considered to interpret the data.

**Inter group Comparison** (a) It is not possible to anticipate any consistent direction of difference between any set of variable scores of the subjects belonging to Transcendental Meditation group and Normal activity group. Therefore, at pre-experimental stage, a two tailed 't' test with  $<.05$  was considered as the criterion of significant difference.

(b) After giving the respective treatments to the respective group, they were compared at post—phase I (after two months) and post—phase II (after four months). As there was a possibility of difference, so to evaluate the difference and to compare them at different levels of treatments, a one tailed 't' test with  $<.05$  level of confidence was adopted as the criterion of significant difference.

## **Result and Discussion**

The mean scores, SDs and 't' values for the control and experimental groups are displayed in Table-I. The obtained findings indicate that there was found no significant difference among the mean scores of any age group variable. Therefore, the findings reveal a homogeneous nature regarding the state of stress among the subjects of both experimental and control group at the pre-experimental stage (fig-I).

A glance on the Table- 2 reveals that the mean scores of the subject of every age group of experimental group have

decreased significantly as compared to the subjects of control group. The subjects of experimental group with age group from

26-30, 31-35, 41-45 and 50-55 showed their highly significant at  $P < .005$ , level.

**Table-1: Comparative state of stress of the subjects of control and experimental groups at pre-experimental stage.**

Age Group	Group	Number of Subjects (N)	Mean	SD	't'	'P' Value
26-30	Control	5	49.20	1.712	0.593	NS
	Experimental	5	49.39	1.369		
31-35	Control	5	48.75	1.241	0.454	NS
	Experimental	5	48.60	2.119		
36-40	Control	5	47.71	3.301	0.975	NS
	Experimental	5	48.10	1.721		
41-45	Control	5	50.20	1.206	0.882	NS
	Experimental	5	49.90	2.396		
46-50	Control	5	46.70	2.117	0.405	NS
	Experimental	5	46.85	2.109		
51-55	Control	5	47.45	3.419	0.782	NS
	Experimental	5	47.81	3.207		

NS = Not Significant

The only exception is the subject of 36-40 age group who found their significance level at  $P < .01$ . On the other hand, the subjects of any age group variable of control group has not displayed significant difference, as it was confirmed on their static state of mean scores.

This indicate that the subjects of every age group of experimental group who were once found homogeneous with the subjects of experimental group at the initial stage of their experiment, now differed significantly due to two months continuous practice of Transcendental meditation.

At this stage, decreased mean scores confirmed that the subjects of experimental group found less uncertain and under stimulation (i.e., less anxious, ambiguous even under the powerful situation of stress), less overloaded by information, less tense about the satisfaction of central needs, less failure in controlling their ego, less failure in ego mastery, less worried about self esteem danger, and less troubled about other esteem danger (i.e. fear of losing affection and esteem of others etc.) compared to the subject of control group. The lessened state of stress of experimental group vis-à-vis control group is illustrated in fig.-2.

**Table-2: Comparative state of stress of the subjects of control and experimental groups at Post-experimental stage, Phase-1**

Age Group	Group	Number of Subjects (N)	Mean	SD	't'	'P' Value
26-30	Control	5	49.15	1.326	4.172	*
	Experimental	5	47.94	1.236		
31-35	Control	5	48.77	1.249	2.586	*
	Experimental	5	48.02	1.284		
36-40	Control	5	47.60	3.326	2.105	**
	Experimental	5	46.80	1.210		
41-45	Control	5	50.38	1.146	4.512	*
	Experimental	5	48.62	3.519		
46-50	Control	5	46.81	1.451	4.896	*
	Experimental	5	45.39	1.236		
51-55	Control	5	47.35	2.141	2.657	*
	Experimental	5	46.42	1.602		

\* P<.005, \*\* P< .01

**c) State of stress after four months of experimental treatment.**

Table-3 displays the mean scores, SDs and 't' values of the subjects of both control and experimental groups at post experimental stage, phase-II i.e. after four months of their respective treatments. The findings of this stage show that the subjects of all age groups of experimental group again differed significantly, as it is confirmed by their decreased mean scores. But the subjects of control group have not displayed such kind of decreasing trend of their mean scores.

At this stage, the mean scores of the subjects who practiced Transcendental meditation regularly for four months, have shown significant decrease in their state of stress. Highly significant difference i.e., P<.005 was observed in subjects of all age group variables of experimental group. At

the end of two months of experimental treatment, the subjects of 36-40 age group were significant at P<.01 level.

But after four months practice of Transcendental Meditation, the subjects of this age group now attained the level of highly significant difference i.e., P<.005. Thus, the result demonstrates that the practitioners of Transcendental meditation not only maintained their gain received from two months of practice, but also found their stability and further improvement in the ability of stress reduction by the end of four months practice of T.M., The subjects of any age group variable of control group did not display such kind of positive change in their mean scores as compared to the subjects of experimental group.

The results reveal that the subjects of experimental group after four months of T.M. practice become less susceptible to stressors. At the preliminary stage, the subjects of all the age groups were the

victim of high state of stress (in accordance with the general norms of ‘state of stress’ as suggested by M. Singh’s stress scale, Table-4).

**Table-3: Comparative state of stress of the subjects of control and experimental groups at Post-experimental stage, Phase-II**

Age Group	Group	Number of Subjects (N)	Mean	SD	‘t’	‘P’ Value
26-30	Control	5	49.25	2.542	7.906	*
	Experimental	5	45.85	3.248		
31-35	Control	5	48.55	2.196	5.833	*
	Experimental	5	46.10	3.158		
36-40	Control	5	47.73	1.226	6.578	*
	Experimental	5	45.23	3.216		
41-45	Control	5	50.26	2.156	6.342	*
	Experimental	5	47.85	2.672		
46-50	Control	5	46.80	1.812	5.702	*
	Experimental	5	44.69	2.347		
51-55	Control	5	47.39	1.378	3.850	*
	Experimental	5	45.85	3.469		

\* P<.005

But after four months of T.M. practice, their stress level has lessened from the high state of stress to the moderate state for all age groups, except the subjects of 41-45 age group. (Table-3 and 4). Though their state of stress is still high, yet they have significantly reduced in their state of stress in comparison to the level of their initial stage, as indicated by their decreased mean scores. Thus, the subjects of all age group variable of experimental group now are remarkably less stress prone and less uncertain under stressful stimuli and less anxious and ambiguous, less overloaded by

information, less prone to the tense and sources of threat, less failure to control ego, less failure in mastering over their ego, less susceptible about the self-esteem danger and less sensitive regarding their other esteem danger. Now, they have achieved the state of mental tranquility and equanimity due to the feeling of deep state of rest and unique state of restful alertness. The subjects of control group have not found such kind reduction in their state of stress as indicated by their mean scores

**Table-4: General Norms of State of Stress as suggested by M. Singh's Stress Scale Manual, (2002, P.5)**

State of Stress	Male
Severe State	57 and above
High State	47 – 56
Moderate State	37- 46
Low State	27- 36
Very Low State	26 and less

### **Discussion**

The subjects of both the groups were found homogeneous in their state of stress at pre-experimental stage. No significant difference was observed between the groups at this stage. (Table-1). Thus, first hypothesis was conformed by the obtained result.

After two months practice of Transcendental meditation, the subjects of experimental group found their decreased mean scores and they differed significantly from the subjects of control group. It is the indication of stress reduction and well functioning and reintegration of psychological state and thereby, the reduction of stress among the practitioners of meditation as compared to the subjects of non- meditating control group (Table-2). The obtained results, thus corroborate the second hypothesis.

After four months practice of transcendental meditation, the subjects of experimental group again found significant reduction in the state of stress as vivid by their decreased mean scores as compared to the subjects of control group. The result of this stage demonstrates that the practitioners of meditation not only

maintained the gain achieved due to two months practice of meditation but also they found their stability and further reduction in the state of stress after four months practice of Transcendental Meditation. The subjects of control group did not displayed such kind of reduction in their state of stress (Table 3). Thus the results also support the third hypothesis.

### **Conclusion**

It can be concluded that by reducing negative thought patterns, mental restlessness, feeling of insecurity and rejection, feeling of being ridiculed, threat of losing affection and esteem of others, Transcendental Meditation enabled the office workers to reprogram the flow of their associations and mental tendencies. It helped for better development of ego, self controlled capacity and tranquil state of mind which provide a strong self anchoring capability to the office workers who practiced meditation continuously for four months.

Therefore the obtain result confirms that the Transcendental Meditation can be used as a potent means of stress relaxation for office going population.

## References

1. Alexander and Marks, E.J., Ego development, personality and behavioural change in inmates practicing the T.M. technique or Participating other programmes : A summary of cross sectional and longitudinal results. Doctoral Thesis of the first Author, Dept. of Psychology and Social Relations, Harvard University, Cambridge Massachusetts, U.S.A. 1962.
2. Betal., C., Preksha Meditation and Drug Abusers' Personality, Shree Publication , , New Delhi, 2006.
3. Betal, C., Effect of Transcendental Meditation on Personality Integration of Adolescents, International Journal of social Development , 2013,oct.- December , vol- 2,PP. 40- 51.
4. Carrington, P, Freedom in meditation, Garden city, Anchor press, Doubleday, New York, 1978.
5. Crooks and Stein, Science Behavior and Life, Holt , Rinehart and Winston, INC, New York.
6. Gaur , B.P. , Personality and Transcendental mediation , Jainsons Publications, New Delhi, 1994.
7. Jaggi, O.P., Mental tension and its cure, orient paperbacks, New Delhi,1997, P-146.
8. Kamakhya , Kumar, A study on the impact on stress and anxiety through Yoga Nidra , Indian Journal of Traditional knowledge , 2008, vol. 7, no. 3.
9. Kozas, E.H., Brain Research and Meditation, Proceedings of second International conference on yoga for health and social transformation , Patanjali Research Foundation, Haridwar, 2013, P .47
10. Krishnamurthy , V.S. Spiritualize to lead a stress – free- life T.R. publications, 1999, P.2,34
11. Maharishi, Mahesh Yogi, Bhagvad Geeta, Age of Enlightenment Publication Jabalpur. 1969.
12. Morgan and His Associates (1992) cited by M.Singh in Stress Scale, Institute of Research and Test, Andheri east, Mumbai, 2002, PP. 1,2
13. Rosenthal, T. M., The effect of T.M. program on self - actualization , self-concept of hypnotic susceptibility, Master's Thesis, Department of Psychology, University of Hawaii, Honolulu, Hawaii U.S.A. 1974
14. Selye Hens, The stress of life, Mac Graw Hill, New York, 1979
15. Singh, M. Manual of Stress Scale . Institute of Research and Test, Andheri east, Mumbai, 2002, PP. 1,2 and 5.
16. Udupa, K.N. Stress and its, Management by Yoga, Motilal Banarsidas Publications, Delhi, 2000 pp 3,4,5