



## RESEARCH ARTICLE

### A STUDY TO ASSESS THE EFFECTIVENESS OF MINDFULNESS BASED STRESS REDUCTION (MBSR) TECHNIQUE IN REDUCING STRESS AMONG THE EMPLOYEES WORKING AT SELECTED INFORMATION TECHNOLOGY CENTRES

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#### ABSTRACT

Stress is not always negative. It may also bring out the best in individuals at times. It may induce an individual to discover innovative and smarter way of doing things. This positive dimension of stress is called as eustress. But usually, the term stress has a negative implication and this negative aspect of stress is termed as distress. For instance - When a subordinate is harassed or warned by his superior, unhappiness of unsuitable job, etc. We can say that "Stress causes some people to break, and other to break records." The Quantitative Research approach was used in this study. Pre and Post test randomized control research design was selected for this study. The study population consists of all the employees working in Information Technology Centers. The employees working in IT sectors affected with professional stress. The study was conducted in two different Information Technology centers. In IT Sector I the interventions (MBSR Technique) was administered. In IT Sector II the interventions was not administered. There is 20 (40%) of the employees had very severe stress and 19 (38%) of the employees had severe stress in pre test. After administering the intervention, the post test level of stress reveals that 19 (38%) of the employees had no stress, 25(50%) of the employees had mild stress and 6 (12%) of the employees had moderate stress in IT Sector I. In IT sector II 16(32%) of the employees had very stress, 20(40%) of the employees had severe stress, 8 (16%) of them had moderate stress and 6(12%) of them had mild stress in pre test. 20 (40%) had very severe stress, 16(32%) had severe stress, 6(12%) had moderate stress and 8(16%) of the employees had mild stress in post test.

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## INTRODUCTION

Stress is a psychological reaction to events in one's environment that cause tension and anxiety, often because the individual feels that they cannot cope or manage the situation. If there is one group of people who are likely to experience workplace-related stress, it's IT professionals. Employees in IT work long hours, often have too much to do without enough staff to do it, and may feel undervalued by the organization in which they work. Many IT professionals would also probably agree that they commonly experience two factors that contribute to workplace stress: 1. Task overload. It occurs when employees feel they have to complete too many tasks within given period, which is common in IT. 2. Heavy responsibility. Much of the work that IT does has important consequences for the organization, and failure can result in a large number of disgruntled end users. Stress has even been linked to reduced

brain function through the deterioration of brain cells. Stress also reduces employees' ability to be innovative by causing people to revert to old habits instead of thinking outside of the box. In the end, chronic stress can eventually lead to employee burnout, which involves emotional exhaustion (feeling tired, overwhelmed), depersonalization, and reduced personal accomplishment (feeling inadequate and cynical). Stress also has monetary consequences that come in the form of reduced productivity and increased sick days. Mindfulness-Based Stress Reduction has been consistently documented as highly effective in teaching participants to become more responsible in the management of their own health, vitality and healing. Two decades of published research indicates that the majority of people who complete the MBSR Program report lasting decreases in physical and psychological symptoms. The studies report:

- Dramatic reductions in pain levels and an enhanced ability to cope with pain that may not go away.

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- Dramatic decreases of anxiety, depression, hostility and the tendency to somatise
- More effective skills in managing stress
- An increased ability to relax
- Greater energy and enthusiasm for life
- Improved self-esteem
- An ability to cope more effectively with both short and long-term stressful situations.

### Need for study

The global recession has caused a significant rise in mental health problems and stress related illnesses among employees. Many have been pushed to perform more for less as budgets have been cut, overtime frozen and jobs axed. According to a survey published late last year, six in ten workers in key global economies have experienced a rise in workplace stress over the last two years. The research, carried out by The Regus Group, a facilities management provider, found that the most significant stress hike occurred in China with 86% reporting an increase in stress, while the international average was 58%. William Willems, vice president for South East Asia at TheRegus Group, warns that 'stress in the workforce can provide companies with real problems: management and work productivity can be seriously impaired, motivation levels may be damaged, and conflict between colleagues can undermine professionalism.'

### Statement of the problem

A study to assess the effectiveness of mindfulness based stress reduction (MBSR) technique in reducing stress among the employees working at selected information technology centres.

### Objectives

- To assess the pre-test level of stress among the IT employee in the intervention and control group
- To assess the post-test level of stress among the IT employee in the intervention and control group
- To compare the pre and post-test level of stress among the IT employee between intervention and control group
- To associate the level of stress among the IT employee in the intervention group with their selected demographic variables

### Hypothesis

- H1: there will be a significant difference in pre and post test level of stress among IT employees in the intervention group.
- H2: there will be a significant difference in pre and post test level of stress among IT employees in the control group.
- H3: there will be a significant difference in level of stress between intervention and control group at the post test level.
- H4: there will be a significant association of level of stress among IT employees with their selected demographic variables.

### Research approach

Quantitative Research approach

### Research design

Pre and Post test randomized control research design was selected for this study

### Population

The study population consists of all the employees working in Information Technology Centers.

### Sample

The employees working in IT sectors affected with professional stress.

### Sample size

Intervention Group – 50 employees  
Control Group – 50 employees

### Sampling technique

Purposive sampling technique was used for this study.

### Inclusion criteria

- Both Male and Female employees working in IT sectors.
- The sample who are available at the time of data collection
- The sample who are willing to participate in study

### Exclusion criteria

- The employees already practice in Yoga or Meditation.
- The Female employees who are in pregnant.

### Data analysis and interpretation

#### Frequency and percentage distribution of employees working in information technology centre I

N=50			
S. No.	Demographic Variables	N Frequency	Percentage
1.	Age in Years		
	Below 25 years	26	52 %
	26 to 30 years	8	16 %
	31 to 35 years	11	22 %
2.	Above 35 years	5	10 %
	Sex		
	Male	28	56 %
	Female	22	44 %
3.	Education		
	Diploma	12	24 %
	Degree	34	68 %
	Post Graduate	4	8 %
4.	Marital Statue		
	Married	28	56 %
	Unmarried	20	40 %
	Single	2	4 %
5.	Divorced	0	0 %
	Type of Family		
	Nuclear	32	64 %
	Joint	18	36 %
6.	Income		
	Below 10,000	12	24 %
	10,001 to 20,000	28	56 %
	20,001 to 30,000	8	16 %
	Above 30,000	2	4 %

7.	No. of Children		
	1	16	32 %
	2	0	0 %
	3	0	0 %
	NIL	34	68 %
8.	Years of Experience		
	Below 2 years	22	44 %
	2-5 years	26	52 %
	5-8 years	2	4 %
	Above 9 years	0	0 %
9.	Area of Residence		
	Urban	36	72 %
	Rural	14	28 %
10.	Use of Relaxation Method		
	Yes	15	30 %
	No	35	70 %
11.	Preferable Work Shift		
	Day	40	80 %
	Night	10	20 %
12.	Extend the Shift Hours		
	Yes	50	100 %
	No	0	0 %
13.	Delay in Promotion		
	Yes	39	78 %
	No	11	22 %
14.	Personal Habits		
	Smoking	20	40 %
	Alcohol	5	10 %
	Use of drugs	0	0 %
	NIL	25	50 %

**Frequency and percentage distribution of employees working in information technology centre II**  
N=50

S. No.	Demographic Variables	N Frequency	Percentage
1.	Age in Years		
	Below 25 years	25	50 %
	26 to 30 years	10	20 %
	31 to 35 years	10	20 %
	Above 35 years	5	10 %
2.	Sex		
	Male	32	64 %
	Female	18	36 %
3.	Education		
	Diploma	15	30 %
	Degree	32	64 %
	Post Graduate	3	6 %
4.	Marital Statue		
	Married	31	64 %
	Unmarried	16	32 %
	Single	3	6 %
	Divorced	0	0 %
5.	Type of Family		
	Nuclear	36	72 %
	Joint	14	28 %
6.	Income		
	Below 10,000	14	28 %
	10,001 to 20,000	31	62 %
	20,001 to 30,000	4	8 %
	Above 30,000	1	2 %
7.	No. of Children		
	1	18	36 %
	2	10	20 %
	3	0	0 %
	NIL	22	44 %
8.	Years of Experience		
	Below 2 years	20	40 %
	2-5 years	24	48 %
	5-8 years	6	12 %
	Above 9 years	0	0 %
9.	Area of Residence		
	Urban	34	68 %
	Rural	16	32 %
10.	Use of Relaxation Method		
	Yes	16	32 %
	No	34	68 %
11.	Preferable Work Shift		
	Day	42	84 %
	Night	8	16 %
12.	Extend the Shift Hours		
	Yes	48	96 %
	No	2	4 %
13.	Delay in Promotion		
	Yes	42	84 %
	No	8	16 %
14.	Personal Habits		
	Smoking	24	48 %
	Alcohol	8	16 %
	Use of drugs	0	0 %
	NIL	18	36 %

**Mean and standard deviation of level of stress among the employees working in information technology center I**

Test	N	Mean	Standard Deviation	Population Standard Deviation	Standard Error of Mean
Pre test	50	29.38	4.7116	4.6643	0.6663
Post test	50	16.72	3.0841	3.0531	0.4317

Mean	Standard Deviation	Population Standard Deviation	Standard Error of Mean	P Value	Level of Significance	T Value
29.38	4.7116	4.6643	0.6663	< 0.00001	P < 0.05	15.89684 (T > P)

There is a significant difference between the level of stress among the employees working in information technology centers before and after administration of mindfulness based stress reduction technique.

**Frequency and percentage distribution of level of stress among the employees working in information technology center I**

N=50

S. No.	Level of stress	Frequency Pretest	Percentage
1.	No stress	0	0
2.	Mild stress	3	6
3.	Moderate	8	16
4.	Severe	19	38
5.	Very severe	20	40

N=50

S. No.	Level of stress	Frequency Post test	Percentage
1.	No stress	19	38
2.	Mild stress	25	50
3.	Moderate	6	12
4.	Severe	0	0
5.	Very severe	0	0

**Mean and standard deviation of level of stress among the employees working in information technology center II**

Test	N	Mean	Standard Deviation	Population Standard Deviation	Standard Error of Mean
Pre test	50	27.78	5.0357	4.9851	0.7121
Post test	50	27.86	5.3985	5.3442	0.7634

Mean	Standard Deviation	Population Standard Deviation	Standard Error of Mean	P Value	Level of Significance	T Value
27.78	5.0357	4.9851	0.7121	0.469539	P < 0.5	0.076625 (T < P)

There is no significant difference between the level of stress among the employees working in information technology center II.

### Frequency and percentage distribution of level of stress among the employees working in information technology center II

N=50			
S. No.	Level of stress	Frequency Pretest	Percentage
1.	No stress	0	0
2.	Mild stress	6	12
3.	Moderate	8	16
4.	Severe	20	40
5.	Very severe	16	32

N=50			
S. No.	Level of stress	Frequency Post test	Percentage
1.	No stress	0	0
2.	Mild stress	8	16
3.	Moderate	6	12
4.	Severe	16	32
5.	Very severe	20	40

## DISCUSSION

The study was conducted in two different Information Technology centers. In IT Sector I the interventions (MBSR Technique) was administered. In IT Sector II the interventions was not administered. The pre test level of stress was assessed and then teach and train the employees to do the MBSR technique. Instruct the sample to do the technique daily for 8 weeks continuously at home. Giving the checklist to monitor the interventions in home practice.

Weekly once the scholar revisit to the centers and monitor the employees checklist. Finally after completion of the eight weeks the post test was assessed. The study reports reveals that in IT Sector I the pre test mean is 29.38 with the standard deviation of 4.7116 and standard error of the mean is 0.6663. The t value is 15.89684 that is  $P < t$  value. The post test mean value is 16.72 with the standard deviation of 3.0841 and standard error of the mean is 0.4317. There is a significant difference in the level of stress among the employees working in IT Sectors before and after administration of MBSR technique. In IT Sector II, the pre test mean is 27.78 with standard deviation of 5.0357 and standard error of mean 0.7121. The post test mean is 27.86 with standard deviation of 5.3985 and standard error of mean 0.7634. The t value is 0.076625 that is  $P > t$ . There is no significant difference in level of stress among the employees working in IT Sector II. There is 20 (40%) of the employees had very severe stress and 19 (38%) of the employees had severe stress in pre test. After administering the intervention, the post test level of stress reveals that 19 (38%) of the employees had no stress, 25(50%) of the employees had mild

very severe stress and 6 (12%) of the employees had moderate stress in IT Sector I. In IT sector II 16(32%) of the employees had very stress, 20(40%) of the employees had severe stress, 8 (16%) of them had moderate stress and 6(12%) of them had mild stress in pre test. 20 (40%) had very severe stress, 16(32%) had severe stress, 6(12%) had moderate stress and 8(16%) of the employees had mild stress in post test.

## Conclusion

Mindfulness based stress reduction is a simple and easy alternative therapy which resembles yoga and helps to reduce the stress quickly than other exercise and yoga. This study will help to reduce the professional stress among the IT employees as they were the common group who come across work stress more than other professionals. This therapy helps to reduce the level of stress among the IT employees and to promote the mental well being of the IT employees and also help the employees to cope up with the daily work related stress. The IT employees may get prevented from future psychological stress related complication

## REFERENCES

- "WHO | Stress at the workplace". [www.who.int](http://www.who.int). Retrieved 2015-10-27.
- Balducci, Cristian; Schaufeli, Wilmar B.; Fraccaroli, Franco 2011. "The job demands–resources model and counterproductive work behaviour: The role of job-related affect". *European Journal of Work and Organizational Psychology*, 20 (4): 467–496. doi:10.1080/13594321003669061. ISSN 1359-432X.
- Beehr, T. 1998. An organizational psychology meta-model of occupational stress. In C. L. Cooper (Ed.). *Theories of organizational stress*. (pp. 6-27). Oxford, UK: Oxford University Press.
- Colligan, Thomas W; Colligan MSW; Higgins M. 2006. "Workplace Stress - Etiology and Consequences"(PDF). *Journal of Workplace Behavioral Health*, 21 (2): 89–97. doi:10.1300/J490v21n02\_07.
- de Jonge, Jan. "Effort-Reward Imbalance Model".
- Hart, P.M. & Cooper, C.L. 2001. Occupational Stress: Toward a More Integrated Framework. In N. Anderson, D.S. Ones, H.K. Sinangil, & C. Viswesvaran (Eds), *Handbook of Industrial, Work and Organizational Psychology* (vol 2: Personnel Psychology).
- Hart, P.M. 1999. "Predicting employee life satisfaction: a coherent model of personality, work and nonwork experiences, and domain satisfactions". *Journal of Applied Psychology*, 84: 564–584. doi:10.1037/0021-9010.63.4.532.
- Henry, O. & Evans, A.J. 2008. "Occupational Stress in Organizations". *Journal of Management Research*, 8 (3): 123–135.
- <http://psycnet.apa.org/psycinfo/2002-13306-001>.

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