
Chapter 10

Findings and Conclusions

SUMMARY, SUGGESTION AND CONCLUSION

10.1 Summary

In the modern world stress is inevitable in each one's life. Stress in individual is any interference that disturbs a person's healthy mental and physical well-being. It occurs when the body is required to perform beyond its normal range of capabilities. The results of stress are harmful to the individuals, families, society and organizations. As far as is companies are concerned, stress cost them enormously in terms of absenteeism, accidents, and reduced level of performance. Hence anything that can reduce the damaging effects of stress makes the workers and their family happier and companies richer. Normally most of the companies take care of the stress of executives. On the contrary companies are not much bothered about the stress of the lower level of employees. Irrespective of the position or job, each employee in the organization undergoes stress. Hence researcher feels that intervention to deal with stress should be reached to the bottom level of employees. Researcher used Yoga the ancient heritage of India as an intervention to deal with stress. Various techniques to overcome stress are described in Yogic tests .The approach and philosophy of Yoga is highly anti stress. Yoga as an intervention strategy is practical in terms of money, time and space. Various studies have been conducted on yoga and stress, but hardly any studies have been conducted on Employees in the organization and its effectiveness on various aspects of employees and he organization. In this background researcher has undertaken this study to study the effectiveness of Yoga in reducing the stress effects, stress level, increasing Job Satisfaction and performance of the employees in the organization. Researcher also believes that irrespective of any age and qualification one can learn yoga and benefit from it. Benefit of yoga is multidimensional. Various studies have been conducted among the people having various diseases. In all these studies it is being reported that many diseased person or disabled individuals different types get enormous benefits. If so, normal

employees in the organization would definitely benefited in many ways. It will reduce many ongoing problems in the industry as well as in employee's family and society. As far as industry is concerned inculcation of yoga practices in the daily schedule is cost effective compared to other ways, if it is planned and implement properly. In today's competitive scenario healthy employees and healthy organization only can survive. In this context the researcher selected the topic of the study and conducted the research.

The objectives of the study were as follows.

1. To find out the causes of stress among the employees in the industry.
2. To assess the level of stress experienced by the employees.
3. To study the physical consequences of stress in employees.
4. To find out the psychological consequences of stress in employees.
5. To assess the effectiveness of yoga in stress reduction and improving coping capacity of employees.
- 6 To assess the effectiveness of yoga in treatment of stress related diseases in employees.
- 7 To assess the effectiveness of yoga in improving job performance and job satisfaction of employees

It was hypothesized as follows.

1. There are many organizational stressors that contribute to the individual stress in the industry.
2. Each employee in the industry experiences Stress irrespective of his or her position, education and income.
3. Regular practice of Yoga is effective in the reduction of stress effects and the improvement of coping mechanism.
4. Higher the level of stress reduction and coping capacity better the job performance and job satisfaction among the employees.

The present study was conducted in Cooper Metal Pvt. Ltd Satara. From among the industries that give permission and necessary support, Cooper

Metal Pvt. Ltd had been selected. In order to conduct the training among the employees of three shifts and general shift, strong support of management and cooperation of Personnel department and Trade Union is very necessary. Researcher found Cooper Metal is the best for this matter. Researcher made a purposeful selection of the universe. All the employees in the company have undergone medical check up of fitness to do yoga and their pulse rate and BP is noted. All of them were given the questionnaire to fill in and asked them to join the Yoga training from next day onwards voluntarily. Experimental design is used for this study. It is pretest-post test control group design. Two groups of employees were selected and the group did not differ from each other in significant respects except by chance. When comparison are made between the experimental and control group to determine the effect of independent variable it is of crucial importance that the groups be composed of people who are as much as alike as possible. The groups are matched in respect to sex, age, qualification, designation, experience, and salary/wage. Experimental group is exposed to yogic training. The age of the Experimental group and control group members ranges from 21 to 51. The participants were asked to attend the training either in the morning or evening as per their shifts. Everyday session continued for one to one and half hours. Duration of the training was 45 days. Yoga Training program were comprises of Prayer, Aasanas, Kriyas, Pranayam, chanting Omkar and Meditation. Those who had high BP and heart diseases were asked to do only relaxation and meditation and were allowed to attend training but not included their data for study purpose. Thus those who volunteered for training formed the experimental group. Initially there were 40 participants. Out of that only 30 participants regularly attended the training. Hence these 30 participants included in the experimental group. The same number of employees who are matched in terms of sex, age, qualification designation, experience, marital status and salary/wage included in the control group. At the end of the training period,

interviews of the subjects in both the group were taken along with medical check up. The personnel officer and the supervisors' were requested to give their observations.

The list of employees is obtained from the personnel department of the company. Thus 30 employees from the experimental group and 30 employees from the control group constituted the two groups forming a total of 60 samples in this study.

DATA COLLECTION:

Primary Source:

The researcher collected data directly from the experimental and control group respondent groups. These were the primary sources of data. The data from the primary sources were collected before and after the yoga training by the same questionnaire. All the respondents selected for the study responded. The medical check up report of the doctor was also used in the primary data. The immediate supervisor and personnel officer filled organizational effects and job performance questionnaire together. Observations of supervisors, Personnel officer and respondents feedback especially of the experimental group also has included in the primary data.

Tools of data collection:

Same tools of data collection were used for both groups .The tool was divided into eight parts. The first part was to obtain the socio-demographic data. The second, to collect data with regard to the medical check up. The third part to obtain data on the effects of stress. The fourth to measure the job performance of the respondents in the industry. 6th part measures the job satisfaction and 7th part to measure the level of stress. The last part is regarding the organizational stress. An open-end question is given to the experimental group to give note on the benefits they got directly from the Yoga practices. The personnel officer fills Job performance questionnaire

after checking the productivity record and in consultation with the immediate supervisor.

The data was analyzed using descriptive statistics and 't' test . SPSS package is used for the same.

Major Findings of the Study

Socio- demographic information of the respondents.

The designation of the respondents who participated in experimental and control group were almost equal. Thus the nature of the job of the respondents did not significantly varied between the experimental group and control group ($t = .283, p = .779$). The mean age of the respondents in experimental and control group were 32.00years and 34.03years respectively. As far as experience is concerned there was significant difference between the groups ($t = 3.186, p = .003$). A comparison of the education of the respondents in both the group revealed that there was no significant difference between the groups ($t = .849, p = .403$). Analysis of the salary/wage of the respondents in experimental and control group shown no significant difference between the groups ($t = .141, p = .889$). Regarding marital status also there is no significant difference between the groups ($t = .000, p = 1.000$). Statistical analysis of the number of dependents in the family indicated a significant difference between the experimental and control group ($t = 2.728, p = .011$). In all, the variables namely designation, age, education, salary, and marital status experimental group and control group respondents are matched to the maximum extent.

Occupational stress

The mean pre training score on occupational stress factors indicate that responsibility of persons(152.5) and role overload (136.66) followed by role ambiguity(136.66) constitute the major occupational stressors. In any organization , in this competitive scenario these are the usual causes of the

stress. Lowest score is shown on low status(70).An analysis of the occupational stress between the experimental and control group indicated that there was no significant difference present between the two groups in terms of Role overload, role ambiguity, role conflict, group and political pressures responsibility for persons, under participation powerlessness, poor peer relations, intrinsic impoverishment, low status strenuous working conditions, un-profitability and total score before the Yoga training. After the training the experimental group shown a high score. It indicates that Yoga training helped them to have better awareness about stressors.

Stress effects

Statistical comparison of stress effect between the pre and post measurement in the experimental group shown significant difference in terms of the five components namely emotional ($t = 8.535, p = .000$) cognitive ($t = 7.746, p = .000$), behavioral ($t = 9.520, p = .000$), physical ($t = 6.114, p = .000$), and organizational ($t = 7.244, p = .000$). There is no significant difference observed between the pre and post measurement of stress effects namely emotional ($t = 2.702, p = .011$) cognitive ($t = .628, p = .535$), behavioral ($t = 1.249, p = .222$), physical ($t = -1.14, p = .910$), and organizational ($t = -.941, p = .354$) of control group. There fore the hypothesis, Regular practice of Yoga is effective in the reduction of stress effects and the improvement of coping mechanism is statistically proved.

Stress level

The analysis of the stress level of the experimental group, shown significant difference ($t = 4.455, p = .000$) between pre and post measurement. But there is no significant reduction in stress level observed between the pre and post

measurement of the control group ($t = -.512, p = .612$). There is a slight increase in stress level among the control group. This proved the hypothesis statement that Yoga practice reduces the stress level of employees. The pre and post measurement of stress level among the experimental and control group revealed the each and every employee irrespective of their designation experience or age experiences stress at varied amount.

Job performance

The analysis of the performance before and after Yoga training among the experimental group members revealed that there is a significant improvement in the performance after Yoga training ($t = -3.810, p = .001$). There is no difference observed between the pre and post performance among the control group ($t = 1.016, p = .318$). This proved the hypothesis that Yoga practices enhance the performance of the employees.

Job satisfaction

Comparison between the pre and post measurement of job satisfaction indicated that there is a considerable improvement in job satisfaction among the experimental group ($t = -2.393, p = .023$). There is no significant difference observed between the pre and post measurement of the control group. ($t = 1.016, p = .318$). This inference proved the hypothesis that yoga practices reduce the stress level and thus increases the job satisfaction.

Conclusion

The following conclusions can be drawn, based on present study.

Based on data collected through questionnaire

1. Responsibility for colleagues and subordinates, role overload, role ambiguity, group and political pressure, strenuous working condition and role conflict found to be the major occupational stress factors among the employees.
2. Awareness about the knowledge about the occupational stressors significantly increased after Yoga training.
3. Majority of the employees are having moderate level of stress.

4. Sleep disturbances, tightness of chest, neck, jaw and back muscles, Diarrhea, Cold hands, Trembling and Sweaty palms were found to be major physical consequences of stress among the employees.
5. Psychological consequences of the stress found in the form of emotional, cognitive and behavioral effects. Among the behavior effects Nervous laughter, Excessive eating/ loss of appetite, Emotional outbursts/aggression, Difficult sleeping, and early waking found to be predominant. As far as cognitive effects of stress are concerned Orientation to the past/present, Diminished sense of meaning in life, and Difficulty in making decision were reported as major effects. Emotional manifestations of stress found to be excessive alertness, Irritability, decreased initiative, and Restlessness.
6. Yoga found to be effective in reducing the stress level of employees.
7. Yoga practices proved to reduce the physical effects of the stress among the employees
8. Yoga practices reduced emotional effects of stress among the employees.
9. Yoga practices found to be effective in reducing the cognitive effects of stress among the employees.
10. The negative organizational effects of stress reduced due to the Yoga practices.
11. Yoga practices found to be effective in improving the job performance of the employees in the Industry.
12. Yoga practices are beneficial in increasing the job satisfaction of the employees.

Based on the feedback received through group discussion

13. Almost all the participants reported a feeling of lightness, freshness freeness and energetic after yoga training. They attributed removal of disturbing thoughts and getting good sleep for these experiences.
14. Participants having previous experiences of physical exercises could realize the different nature of yoga practices such as Aasanas Pranayama and Kriyas



15. Some participants experienced body ache and a mild aggravation in their complaints and wanted to stop/discontinue. As they were told the possibility of such an outcome of the training in the beginning they continued and these complaints passed off by the end of second week.

16. A sense of self-development without reverence to anyone else was experienced by most of the respondents.

Based on officers feedback about employees

17. Participants of the experimental group showed better inclination for doing work after yoga training; some of them started enjoying the work they were doing before.

18. Many subjects developed tolerance for others and became more calm and quiet in their overall behavior.

19. Severity of various addictions observed to be definitely reduced.

20. Subjects of the experimental group expressed their keen desire and willingness to continue yoga practices.

21. Introduction of Yoga training brought about a substantial positive change in the attitude of experimental group. The trained subjects appeared to be happier and satisfied.

22. It is also proved that industry can implement yoga practices in the daily schedule without disturbing the work and it only creates a better environment in the company.

10.2 Suggestion for further research

1. This study needs to be replicated in larger samples and in different type of Industries to generalize the findings.

2. The long-term impact of Yoga practices on organizational effectiveness to be studied.

3. A close observation of behavioral changes in detail including the family can be included in the study.

4. Improvement on productivity to be studied in detail.
5. More number of discussion on Yama and Niyama components of Yoga to be added in the yoga training. Training on Meditation also to be given more emphasis.
6. More number of observations at regular interval may be helpful to understand the progress in various benefits derived by the participants.
7. More than one control group also can be added.
8. Medical examination on biochemical changes also can be measured at regular interval.
9. Participants of present study were male employees. Study can be conducted among the females also.
10. Extra organizational stressors to be investigated in detail, including family and societal stressors.

10.3A MODEL STRESS MANGEMENT CENTRE IN THE INDUSTRY

Based on the experience and need realized during the study on the topic researcher visualize a model of stress management center in the Industry which is given below.

Stress management programme should be an important component of any worksite health / welfare promotion program. In Stress and Well-Being at Work, Quick, Murphy, and Hurrell, (1992) have suggested a model for occupational well-being and distress prevention which focuses on: (a) primary prevention to reduce risk factors or change the nature of occupational stressors, (b) secondary prevention to alter the ways in which individuals respond to the risks and stressors, and (c) tertiary prevention to heal those who have been traumatized or distressed at work. A comprehensive approach to stress control at the worksite will offer the most effective measure of dealing with stress related illnesses and losses in productivity. One innovative approach to the delivery of stress management

services entails the development of a stress management and relaxation center. The purpose of this facility is to provide employees with an area, equipment, and qualified staff to encourage learning about and practicing stress management and relaxation techniques. Employers may choose to address organizational factors that contribute to workplace stress, offer rehabilitation services for stress related illnesses, or promote individual coping skills to deal with daily stress.

Stress is not the same for all people and one approach will not work for all employees. As an example, providing employee training in individual coping techniques, as a preventive measure without also correcting negative stressful working environments is short sighted and may be viewed by some as blaming the victim for the problems of the corporation. Additionally, many personal stressors are not work related and will not be improved through environmental or organizational changes. The NWNL study (1992) determined that two out of three employees felt stressed by factors outside the workplace. Clearly, an effective stress reduction program must be broad based enough to deal with a host of stress related causes and outcomes. Usually companies conduct occasionally some workshop or seminar on stress management or send the some especially middle and top management employees out somewhere for some stress management causes. Few companies treat the stress related disorders. Practically it is very important to have programmes in the preventive aspect. Researcher on the basis of the findings of the present study and the experiences gained throughout the study to put forward a comprehensive programme on stress management for the employees in the Industry. This model has a reference to an existing program and facility at Ohio University, in Athens, Ohio.

Programme content

1. Regular practice of Yoga by all the employees employed, either before or after their work Yoga consists of Asanas, Meditation, Ppranayam,

occasional Kriyas, and occasional group discussion on Yamas and Niyamas with the help of experts in Yoga.

2. Education on healthy lifestyle, healthy food habits, Time Management.

3. Establishment of a resource library: There should be a lending library of relevant educational materials. Good quality relaxation cassette tapes, self-help books on tape, printed materials including books and workbooks, and the instructional video tapes are available for topics ranging from time management to self hypnosis. Materials should be screened as well as possible for their scientific validity and appropriateness for use with the intended audience.

4. Biofeedback: It is a behaviour therapy. Biofeedback equipment is used in relaxation training to monitor stress related physiological processes such as muscular tension, heart rate, peripheral temperature and perspiration. By providing feedback of physical effects that one is normally unaware of, an individual can learn how to alter their physiology in a stress modifying way. As an example, by measuring the electrical activity in a muscle group with the use of an EMG monitor, one can quickly learn how to decrease audio or visual feedback associated with the electrical activity in a muscle group. Muscles continue to hold residual tension as a by-product of the stress response. This accumulated tension is the opposite of relaxation. When one becomes proficient at lowering measures of residual muscular tension, then they have learned a skill for relaxation and will no longer need the EMG monitor. Similarly Employees can get information about pulse rate, blood pressure, etc also. Instrument can be provided to the employees and they can check for themselves and become aware of bodily changes taking place in them.

Another approach to relaxation training is the use of light-sound machines. Certain brainwave frequencies have been associated with relaxed emotional states. Light-sound machines employ exposure to flashing lights and repetitive sound impulses, set to specific frequencies to drive brainwave

activity and thus facilitate a state of relaxation. Light-sound machines with glasses and headphones are fairly inexpensive and can be made available to employees as part of the stress management and relaxation center.

5. Counseling services: As per the need counseling services to be provided to help the employees in their personal problems by a professional Social worker with human resource management specialization and a diploma in counseling.

6. Extension service to the family members. Above programmes can be made available to the family members of the employees also as per the need. Because, the physically and mentally healthy employee is the product of the family.

7. Optional sports activities. As per the interest of employees they can make use of the facility.

LOCALITY OF THE CENTRE

The stress management and relaxation center can be situated within a location that is convenient and easily accessible to all employees. The room or rooms for a stress management and relaxation center need to be large enough to accommodate all employees. It should be quiet and relatively private. The lay out and requirements of the facility will depend on its function and the equipment to be utilized.

Equipment and Supplies

Equipment purchased for this facility can include a computer system and printer with basic word processing, data base management and stress assessment software; instructional audio cassette tapes, video tapes and books; a weighing machine, biofeedback equipment with electromyograph (EMG), temperature, and galvanic skin response (GSR) monitors, light/sound machines, a reclining lounge chair, a VCR with monitor, and a stereo system with headphones. The purchase of a lounge chair will

complete a relaxing environment for the employees to learn about and practice techniques. The stress management relaxation center is a logical venue for the management of group instructional classes. Exercise mats can convert an unused aerobics exercise room into a comfortable yoga classroom.

Staff

Depending on the number of the workforce, it may be possible for one coordinator and one qualified Yoga instructor to manage the stress management and relaxation center. This coordinator should be a health educator with a graduate degree and special training in stress management. Qualified social work professional for counseling and doctor for medical check up can be hired on a part time basis as per the need. However if the company is not in a position to appoint the coordinator and Yoga Instructor, company can appoints the experts for at least three months and set up the center, train the employees and occasionally they can be invited for consultation and advice. Later on Employees themselves can manage the center. Then it is not expensive and employees become more responsible and confident.

Marketing the Program

The novelty of a new and innovative approach to health promotion, along with general curiosity, will bring many employees to the stress management and relaxation center. Advertising the new facility with an open house celebration will allow many otherwise inhibited individuals to tour the facility. New employees should certainly be introduced to the center as part of their new employee orientation. Employees will choose to come to the center for a variety of reasons. A successful campaign will identify these interests and exploit them within program advertising. As an illustration, some may be lured to the facility with the objective of increased performance and personal effectiveness, others will be searching for relief of some stress related condition (e.g., insomnia, tension headaches, chronic

pain, hypertension), some will be searching for experiences with altered states of consciousness, and still others will be content to simply have a place to go for a temporary escape from the pressures of daily life. Those designing promotional materials should be cognizant of the range of motivations for visiting the stress management and relaxation center and should be prepared to address the scope of these needs.

The opportunity to visit the center will often introduce employees to the health promotion program that have never participated in any other company sponsored prevention efforts. Once these individuals have contact with the program and realize the benefits of its components, they are more likely to attend and participate in future health promotion efforts. As an example, the sedentary worker who comes to the center complaining of stress related symptoms may be encouraged to see the therapeutic value of participating in a fitness program to relieve stress. Similarly, the physically fit employee may need to be reminded of the benefits of deep relaxation as a supplement to a vigorous exercise program.

Time management:

The common objection from management and employees is about the availability of time. Even if the management allot one hour from the working hours also it will not be a waste. Other wise employees can spend one hour after their work. Usually there are three shift and one general shift. There can be three batches of Yoga or relaxation activities every day. One in the morning after the third shift, second one hour before the 2nd shift and 3rd after the 1st shift. First second and third batch will be attended by 3rd shift, 2nd shift and 1st shift employees respectively. General shift employees can attend either the 1st or 3rd batch. The second session will have only relaxation activities, since they are coming after the heavy lunch.

Reason for having the center to be at the work site

Common argument is that once the employees are trained in all these activities they can practice at home. But the environment and circumstances,

many of the times do not suit for it. But if it is part of daily routine in the employment employees do it regularly. Again the work place is a family. There everybody should be getting chances for betterment and all of them should progress together to have more harmonious life.

Immediate benefits to the organization

Organization will be benefited in terms of reduced absenteeism, better performance, less accidents, better industrial relation and in turn more profit. In all, a healthy organization and physically and mentally healthy employees would be the final result.

Some practical guidelines for reducing stress

*To lessen stress one must either learn to trust others to get the job done, or prioritize jobs to get rid of "what must be done" first.

*Instead of coffee or cigarettes, have a brief chat with friends, a short leisurely walk, even one can enjoy the beauty of the nature or think about the positive things happened in the day.

*It is advisable to leave the work place when one get break. The point of a break is to get away from whatever work one is doing. One can't get the mind off the work remaining in work area.

*Getting along with co-workers and the boss is something to learn to put up with, or it can turn into a festering wound that only gets worse with time. If you're having problems, get them out in the open. . If one can't clear the air or have tried using all the company procedures to resolve a grievance, and no longer enjoy the job, hate to go to work, or feel that the pressure is getting to be too much, it may be time to seriously consider a change.

* Participate in some sports activity, to relax without competitive spirit.

*Families can be as source of support, an oasis away from the everyday pressures or sometimes it's only a place to grab a few hours sleep and get back in the rat race. The children, spouse, family members, in-laws can be a source of irritation at times.

erson's home should indeed be a place to rest and relax. Many people find it helpful unwind by sharing the day's events with their loved ones. Talking things over is a great way to get rid of built up stress that many people overlook.

*A great way to get rid of stress is, every once in a while, do something totally different and unexpected without any prior planning. Don't fall into a trap when one must do such and such thing a certain way, or at specific time.

*Realizing what one can change about own life and knowing what one can't can best manage stress. Learn how to recognize the difference and enjoy life more and be better able to deal the ups and downs that are part of everyone's life.

Conclusion

Researcher found stress at various level is common among the employees in the industry. With today's industrial scenario, it keeps on increasing day by day. Stress is experienced at each level of the organization that is top to bottom. Hence there should be a reasonable, affordable and convenient strategy to deal with stress. The results of the study indicate, yoga practices considerably reduced the emotional, cognitive, behavioral, physical and organizational effects of stress among the employees. As a result, an increase in job satisfaction and job performance was also reported. In the light of above results, it can be recommended that a stress management and relaxation center should be part of any worksite health promotion program. Yoga practices should be inculcated in the daily schedule of the employees through the center. The emphasis of such a center is on allowing individuals to experience a variety of stress management techniques and to develop competence in one or more techniques. A commitment by the employer to reduce work related stress while promoting the concept of a stress management and relaxation facility, demonstrates a concern in the lives of the workers and the stress in their lives. By empowering individuals to better manage their stress and relax, we can ensure a healthier and more productive

workforce. Similarly the organization should find out the actual causes of stress, through stress audit. Organization should understand the true costs of stress and of the benefits, which could be obtained from its prevention. The ILO's experience shows that there are many options available for the prevention of stress, but that the most effective involve a certain amount of organizational change. After the results of the audit have been analyzed, it is very important to ensure that necessary changes to be made in the organization to reduce the stressors as far as possible. Raising awareness of the occurrence and effects of work-related stress by means of a thorough analysis of the work environment provides a sound basis for deciding upon the most effective types of preventive action to be taken, as well as for convincing all those concerned of the need for such action. If these measures are adopted it will go a long way in reducing stress amongst the employees thereby not only increasing their efficiency and improving performance but also for leading a peaceful and happy life in organization, society and in their family.