

## RESEARCH

includes research articles that focus on the analysis and resolution of managerial and academic issues based on analytical and empirical or case research

# *Impact of Adoption of Yoga Way of Life on the Reduction of Job Burnout of Managers*

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### *Executive Summary*

Burnout is a prolonged response to chronic emotional and interpersonal stressors on the job, and is defined by the three dimensions of exhaustion, cynicism, and inefficacy. Job burn-out is a debilitating psychological condition, which has serious repercussions for an individual's personal health as also on the organizational effectiveness. The past 25 years of research has established the complexity of the construct, and has placed the individual stress experience within a larger organizational context of people's relation to their work. As a holistic science concerned with all aspects of human functioning, *yogic* science provides a unifying framework by which stress can be understood and eliminated. *Yoga* involves a systematic method by which we can begin to expand our awareness of the processes which lead to stress and thus gain control over them.

*Yoga* way of life has direct relevance to address the issue of stress and burnout. While several studies in the past have acknowledged this aspect and discussed various ways by which *Yoga* can address this aspect, till date very little effort has gone into empirically assessing the impact of *Yoga* way of life. The main contribution of this paper is to fill this gap. This study hypothesizes that managers who learn and adopt the *Yoga* way of life will be able to reduce their job burnout better than the others who engage in other things to improve their physical and mental progress. An experiment was conducted to collect data and test the hypothesis in a manufacturing unit.

The results show that adoption of the *Yoga* way of life can significantly reduce the job burnout of managers. The *Yoga* way of life is an integrated approach to the changing physical, mental, vital and emotional personality of an individual. It is aimed at making managers more evolved individuals with better understanding of their job situation in the overall context of life. Through a rigorous literature review and understanding of the science of *Yoga* as given in our scriptures, the paper also provides an explanation of the mechanism of how this happens. Among many suggested coping skills for stress, *yoga* happens to be fitting in the best, mainly because of its ability to change positively the individual responses to stress stimuli. However, in order to get benefit of *Yoga* in its entirety, one has to adopt *Yoga* as a technique of life management. The authors motivate the HR managers in organizations to explore ways of implementing the *Yoga* way of life as it promises to address the issue of stress at a fundamental level.

#### KEY WORDS

Job Burnout

Stress Management

Yoga Way of Life

Transcendental Meditation

**B**urnout can be defined as the end result of stress experienced but not properly coped with, resulting in symptoms of exhaustion, irritation, ineffectiveness, discounting of self and others, and problems of health (hypertension, ulcers, and heart problems). Perhaps the best-known fictional example of job burnout comes from the novel, *A Burnt Out Case* (Greene, 1961), in which a spiritually tormented and disillusioned architect quits his job and withdraws into the African jungle. Other literature, both fiction and nonfiction, has described similar phenomena, including extreme fatigue and loss of idealism and passion for one's job. In modern corporations, institutions working not-for-profit, and government organizations, one of the important concerns is the issue of burnout that employees experience at their workplace. This has serious consequences including reduced productivity at workplace, bad health, and mental stress for the employee. If not addressed effectively, this can threaten to manifest as a social problem at a later time.

Researchers have recognized the importance of addressing the issue of stress and burnout. The factors that cause stress and burnout have been identified. Recent research has also identified the negative impact that burnout has on both the employees and organizations. Louise (2008) observed that the lifetime prevalence of an emotional disorder is more than 50 per cent, often due to chronic, untreated stress reactions. Occupational Safety and Health Administration (OSHA) declared stress as a hazard of the workplace. Stress costs American industry more than \$300 billion annually. In the physiology and management literature, job stress is usually defined as a characteristic of the individual, i.e., the psycho-physiological changes experienced as a consequence of job-related demands on the individual. In this context, stressors are environmental or internal demands leading to adaptive (or maladaptive) responses on the part of the individual. Stress management refers to the adaptive behaviour of changing any aspect of the environment or person in such a way as to decrease stress response (sometimes referred to as "strain") and promote organizational and/or individual health.

The *Yoga* way of life has direct relevance to address the issue of stress and burnout. While several studies in the past have acknowledged this aspect and discussed various ways by which *Yoga* can address this aspect, till date very little effort has gone into empirically assessing the

impact of the *Yoga* way of life. The main contribution of this paper is to fill this gap. Using a controlled scientific experimentation of employees in a manufacturing unit, we provide an empirical assessment of the impact of the *Yoga* way of life on stress and burnout.

Taking cue from this, we pose the question, "Can adoption of a complete *Yoga* way of life reduce significantly the job burnout experienced by most executives? If so, can we empirically observe this phenomenon and provide relevant literature support to explain this? To the best of our knowledge, there is no empirical research available so far to answer these questions. We study these issues in this paper using an empirical study conducted in a manufacturing unit involving 84 executives.

We show that the adoption of the *Yoga* way of life can reduce the stress and strain of managers and that, in turn, can reduce their job burnout comprising of emotional exhaustion, depersonalization, and diminished personal accomplishment. Through a rigorous literature review and understanding of the science of *Yoga* as given in our scriptures, we also provide an explanation of the mechanism of how this happens. We also motivate the HR managers in organizations to explore ways of implementing the *Yoga* way of life as it promises to address the issue of stress at a fundamental level.

## STRESS AND BURNOUT: CAUSES AND IMPACT

Burnout can be defined as the end result of stress experienced but not properly coped with, resulting in symptoms of exhaustion, irritation, ineffectiveness, discounting of self and others, and problems of health (hypertension, ulcers, and heart problems). Maslach and Jackson (1981) conceptualized burnout as a syndrome consisting of three components. *Emotional exhaustion* refers to mental and physical tension and strain resulting from job-related stressors. *Depersonalization* refers to distancing of oneself from others and viewing others impersonally. *Diminished personal accomplishment* is a feeling of negative self-evaluation. Exhaustion is the central quality of burnout and the most obvious manifestation of this complex syndrome. When people describe themselves or others as experiencing burnout, they are most often referring to the experience of exhaustion.

Maslach (1982) reviewed literature on burnout and concluded that there is no single definition of burnout that is accepted as standard. However, despite the differ-

ences, there are also similarities among various definitions of burnout. First of all, there is general agreement that burnout occurs at an individual level. Second, burnout is an internal psychological experience involving feelings, attitudes, and motives and expectations. Third, there is also general agreement that burnout is a negative experience for the individual, in that it concerns problems, distress, discomfort, dysfunction, and/or negative consequences.

Several studies in the past concluded that burnout has negative effects on job performance. Burnout leads to lower productivity and effectiveness at work (Maslach, Schaufeli and Leiter, 2001). Consequently, it is associated with decreased job satisfaction and a reduced commitment to the job or the organization. People who are experiencing burnout can have a negative impact on their colleagues, both by causing greater personal conflict and by disrupting job tasks. Thus, burnout can be "contagious" and can perpetuate itself through informal interactions on the job (Maslach, Schaufeli and Leiter 2001).

Burnout can be defined as the end result of stress experienced but not properly coped with. Stress in organizations has been documented to produce wide-ranging psychological, physical, and behavioural ill-effects. The costs of stress are variously estimated at hundreds of billions of dollars annually, or 12 per cent of the US GNP (Siu, Lu and Cooper, 1999). The visible portion of these costs stems from compensation claims (Kottage, 1992), reduced productivity and increased absenteeism (Manuso, 1979), added health insurance costs (Mulcahy, 1991), and direct medical expenses for related diseases such as ulcers, high blood pressure, and heart attacks (Newman and Beehr, 1979). Louise (2008) observed that 43 per cent of all adults in the US suffer adverse health effects from stress. He further reported that 75-90 per cent of all the doctors' office visits are for stress-related ailments and complaints.

Stephen and Lesley (2002) opined that although the 'official' figures for the cost of stress vary widely, they have one common feature – they are all massive. They suggest that there is a huge cost to individuals and to organizations. However, we believe that the cost is not just financial; there are mental, physical, and social costs as well. The evidence for stress-related ill-health is all around us. If we look at several of the modern organiza-

tions, it is likely that some of the workforce would report very low levels of satisfaction with both their jobs and the organization. Some others would report having suffered some major life event in the past three months and still others would report levels of mental ill health that are worse than those of psychiatric outpatients receiving clinical treatment for anxiety and depression.

A study of the literature reveals that several variables were tested for their moderating effects on stress. People who display low levels of hardiness (involvement in daily activities, a sense of control over events, and openness to change) have higher burnout scores, particularly on the exhaustion dimension. Burnout is higher among people who have an external locus of control (attributing events and achievements to powerful others or to chance) rather than an internal locus of control (attributions to one's own ability and effort) (Maslach, Schaufeli and Leiter, 2001).

Srivastava (1985) studied the moderating effect of the need for achievement on the relationship between role stress and job anxiety. Another study (Pestonjee and Singh, 1988) investigated the moderating effect on locus of control on the stress and job satisfaction relationship in the case of 101 role incumbents of a private electricity supply company. Pestonjee and Singh (1988) also investigated the moderating effect to Type-A pattern of behavioural disposition on the relationship between role stress and state-trait anger. The finding revealed that stress, Type-A behaviour, state and trait anger were correlated positively and most of the coefficients of correlation (for example, 79 out of 88) were statistically significant. (Pestonjee, 1999)

Singh and Srivastava (1996) tried to examine the independent and moderating effect of Type-A behaviour pattern on the stress-health relationship. Type-A managerial personnel scored significantly higher on role ambiguity, role conflict, and overall job stress in comparison to Type-B managers. Type-A managers also showed elevated levels of systolic and diastolic blood pressure as compared to Type-B managers.

Based on these studies, we conclude that several variables have a moderating effect on stress. These include organizational climate, locus of control, Type-A behaviour pattern, needs (need for achievement, need for self-actualization, and need for personal growth), mental

health, job satisfaction, hierarchical level, coping strategies, group-oriented attitude, participation in opinion-seeking, cognitive failure, and effort and outcome orientations.

## YOGA WAY OF LIFE AND ITS RELEVANCE TO STRESS MANAGEMENT

*Yoga* is one of the six foundations of Indian philosophy and has been used for millennia to study, explain, and experience the complexities of the mind and human existence (Feuerstein, 1998). Patanjali, an ancient *Yoga* sage, defines *Yoga* as a technique used to still the fluctuations of the mind to reach the central reality of the true self (Iyengar, 1966). Patanjali's *Yoga Sutras* outline a skillful way of conducting life that fosters moderation and harmony (Becker, 2000). These guidelines, which include ethical and moral standards of living in addition to postural and breathing exercises, are primarily used to foster spiritual growth and evolve one's consciousness.

*Ashtanga Yoga* encompasses cognitive learning, moral conduct, physiological practices, and psychological therapy. The first two steps of *Yama* and *Niyama* seek and shape external behaviour and thought patterns and thus minimize disturbances in the mind and the body. On the behavioural side, abstention is sought from violence, falsehood, dishonesty, sexual excess, and acquisitive tendencies. On the cognitive moral side, the ideals prescribed are: purity, contentment, austerity, self study and forbearance. The stages of *Asana* and *Pranayama* are meant for disciplining the body and regulating subtle energy flows. In the fifth stage of *Prayahara*, secondary input is regulated so that the mind is not distracted. The stages of *Dharana*, *Dhyana*, and *Samadhi* are for uplifting one's spiritual self and for heightening consciousness.

According to Srinivas (1994), a series of techniques collectively known under the general label, '*Yoga*,' present a rich source for generating indigenous organizational development techniques that may perhaps find better acceptance than imported intervention designs from the West. "Originally developed for personal spiritual growth, *Yoga* offers a well formulated approach to planned change." (Srinivas, 1994).

As a holistic science concerned with all aspects of human functioning, the science of *Yoga* provides a unifying framework by which stress can be understood and eliminated. According to *Yoga*, we are unconscious of

those mental/emotional/perceptual processes which habitually create stress. *Yoga* involves a systematic method by which we can begin to expand our awareness of these processes and thus begin to gain control over them. So, in a very practical sense, *Yoga* gives us the tools and techniques by which we can expand our conscious awareness into the unconscious parts of the mind in order to become aware of the patterns and habits which lead to stress. *Yoga* is by far the most important technique used by the Indians to cope with the problem of stress and burnout.

In any stress disorder, the para-sympathetic auto-nervous mechanisms fail to function adequately to minimize the impact of stressful stimuli. Among several relaxation practices, *Yoga* has the potentiality to influence the auto-nervous mechanisms in various ways. The science of *Yoga* is based on the principle of stimulating one's body and mind and then relaxing it turn by turn. This restores the functioning of sympathetic and para sympathetic nervous systems and so stress does not get built up.

Bhole (1977), in his conceptual paper, explained different aspects of *Yoga*. The *Yoga* way of life encompasses the philosophy of *Karma Yoga* (path of detached action), *Jnana Yoga* (knowledge of self), *Bhakti Yoga* (trust in the supreme order) and *Raja Yoga* (*asana*, *pranayama*, meditation, etc.). Practising this knowledge may bring about a complete transformation of one's personality, on physical, mental, emotional, and spiritual levels which strengthens his stress-coping skills. According to Bhole (1977), *hatha-yoga* practices like *asanas* (i.e., posture), *pranayama* (i.e., breathing practices intended to influence vital forces), *kriyas* (i.e., cleaning process), *mudras* (i.e., certain internal attitudes) and *bandhas* (i.e., neuro-muscular locks) are mostly taught as physical practices. While various meditation techniques work at the mental level, all these practices are intended to develop a certain type of awareness within oneself. This in turn is expected to bring about a change in the emotional and visceral functions and through them, a change in the intellectual and somatic functions of the individual.

Palsane *et al* (1993) have observed that modern Western psychological literature focusing on ideas related to the strength of motives and frustration and their behavioural consequences, the frustration-aggression hypothesis, ego involvement, mind-body interactions (psychosomatics),

and locus of control have their parallels in the ancient Indian thought.

Misra (1989) found that effort orientation rather than concerns for outcome leads to greater intrinsic satisfaction. Chakraborty (1987, 1993) provides experimental evidence that practising *Yoga*, meditating, controlling breathing and stilling the turbulent mind can enable workers and managers to purify their *chitta* and make it spiritual, expand their self to include others around them, and help them grow and transform themselves without expecting anything in return. According to Fersling (1997), although there is a lack of controlled studies, *Yoga* is regarded as a promising method for the treatment of stress-related problems. Several studies have shown *Yoga* to be promising for physiological (Murugesan, Govindarajulu, and Bera, 2000) and psychological outcome measures (Malathi, *et al*, 2000).

Studies such as those conducted by Singh and Udupa (1977), Datey (1977), Sachdeva (1994), Vasudevan (1994), Venkatesh (1994), and Rao (1995) throw light on the positive effects of *yogic* practices on experienced stress. Udupa, Singh and Dwivedi (1977), in their study on two groups of volunteers who practised *vipasana* meditation for 10 days, had noted a significant increase in the levels of acetylcholine, cholinesterase, catecholamine, and histamines activities in the blood. On the other hand, there appeared to be a reduction in the level of plasma cortisol, urinary corticoids, and urinary nitrogen. These findings suggest that volunteers were neuro-physiologically more active following *yogic* meditation and yet, were physically and metabolically stable.

In a study done by Granath, *et al* (2006), a stress management programme based on cognitive behavioural therapy principles was compared with a *Kundalini Yoga* programme. Psychological (self-rated stress and stress behaviour, anger, exhaustion, quality of life) and physiological (blood pressure, heart rate, urinary catecholamine, salivary cortisol) measurements obtained before and after treatment showed significant improvements on most of the variables in both groups as well as medium-to-high effect sizes. However, no significant difference was found between the two programmes. The results indicate that both cognitive behaviour therapy and *Yoga* are promising stress management techniques.

In a study done at Vivekanand *Yoga Anusandhan Samsthan*, Bangalore, Telles *et al* (2004) found that *Yoga* training

can help people to reduce their heart rate, which has possible therapeutic applications. In another study done at the same place, Patil and Telles (2006) found *Cyclic Meditation Technique*, developed by Vivekananda *Yoga Anusandhan Samsthan*, Bangalore, to be more effective in achieving voluntary heart rate variability as compared with another *yogic* technique of *Supine Rest (Savasana)*.

An experiment on stress reduction using the Transcendental Meditation (TM) technique and Progressive Muscle Relaxation (PMR) was conducted at a South African firm with 80 employees (Broome *et al*, 2005). Six weeks of TM practice produced greater reductions in psychological stress than six weeks of PMR ( $p < 0.03$ ). A review of studies conducted on Transcendental Meditation (TM) by Orme-Johnson, Zimmerman and Hawkins, 1997) through over 500 experimental studies in 200 Universities from 33 countries revealed that TM helps expand consciousness, decrease oxygen intake and stress level, increase basal skin resistance and coherence in EEG, and virtually suspends breathing up to one minute. Transcendental Meditation is a skill of effortlessly minimizing mental activity so that the body settles into a state of rest deeper than deep sleep while the mind becomes clear and alert. They showed that meditators displayed a greater physiological equilibrium than non-meditators. They also showed that meditators maintained this equilibrium under stress more effectively than non-meditators.

Sahasi, Mohan and Kacker (1989) conducted a study to measure the effectiveness of *yogic* teachings in the management of anxiety. A group of 91 patients suffering from anxiety neurosis were taken up for treatment. Patients were randomly assigned to *Yoga* therapy (Group I) or drug therapy (Group II), subject to their willingness to participate in the *yogic* practices. There were 38 patients in the former group while 53 patients were administered drug therapy. Patients were assessed clinically and administered psychological tests prior to the commencement of the treatment schedule and also after its completion. The anxiety level in Group I decreased, the Locus of Control Scale revealed increased attention/concentration though it was not statistically significant. In the drug therapy group, pre- and post-treatment scores were not statistically significant on any test except the Locus of Control Scale.

Sachdeva (1994) investigated the effect of 12 weeks of

*yogic* life-style on hypertension in a sample of 26 hypertensive and 20 normotensive subjects. The *yogic* lifestyle comprised meditation, breathing techniques, correct postures, a low-fat, non-spicy vegetarian diet, and behavioural modification. Findings revealed a significant reduction in systolic and diastolic BP, body weight, serum cholesterol and triglyceride levels following the implementation of the *yogic* lifestyle.

Rao (1995), in his paper, has dealt with the scientific and psychological significance of *Yoga* as a means of attaining spiritual emancipation. According to this author, findings from empirical studies on *Yoga* revealed that long-term practitioners of *Yoga* had acquired a remarkable voluntary control over their autonomic processes, which helped them in coping with psychological stress. The author describes *Yoga* as a system of psychotherapy and calls upon clinicians to perfect *Yoga* therapy so as to make its application universal.

Taking cue from the philosophical texts of India, Pandey and Naidu (1986) studied the effort and outcome orientations as moderators of the stress-strain relationship. They noted that the concept of 'detachment' is highly valued in Indian culture. The doctrine of detached action calls upon the individual to serve the society by scrupulous performance of one's duties with utmost skill but without desiring the fruits of actions so performed. It is one of the ways in which an altered super-conscious state or self-realization can be attained. Effort orientation, according to this doctrine, is the 'individual's focus on task at hand' and 'advice of not to focus on or to be concerned about the outcomes of that activity.' Further, the doctrine emphasizes that an effort should be made to maintain emotional stability regardless of the outcome of the effort, be it success or failure.

The authors theorized that the effort and outcome orientations may moderate the stress-strain relationship for three reasons. First, the individual practising the ideal of detached action would concentrate on most of the activities in which he engages which, in turn, would lead to the attainment of a higher degree of skills. Second, the practice of being mentally less concerned about the outcomes may help in conserving the physical and psychic energies and hence, the subject would be less affected by mental distracters such as anxiety and fear of failure (which lead to energy dissipation). Third, it is likely that the person practising these ideals cognizes

the stressful events in relatively more positive terms. In the light of these reasons, the authors hypothesized that in the case of subjects with a high degree of effort orientation compared to those with a high outcome orientation: (a) the correlation between stress and strain events would be smaller; and (c) the means of different strain scores would be smaller.

A battery of three questionnaires was administered to 190 male and female students of Allahabad University in the above research done by Pande and Naidu (1986). An 18-item questionnaire was specially designed to measure outcome, Effort-I and Effort-II orientation indices; 33 items were selected from the scales developed by Agrawal (1985) and Tandon (1986) to measure stress. Caplan, Naidu and Tripathi (1984) Scale was used to measure strain. Pearson's product moment coefficients of correlation and sub-grouping analysis were used to analyse the data. On the basis of these findings, the authors concluded that (a) concentration on the task at hand not only protected the subject from succumbing to his/her stressful experiences but also improved his/her health even in the face of overt stress; (b) the absence of concern regarding outcomes during work activities minimized the strain and fostered positive health status.

The above study done by Pande and Naidu (1986) is the main motivation for this research. This study addressed only one aspect of *Yoga* philosophy (effort orientation instead of outcome orientation) and reported positive results on the stress-strain relationship. The study only tried to measure and find out that people with effort orientation are less strained. Two questions arise from this. Is it possible to develop effort orientation by some training? If only one aspect of *Yoga* philosophy, i.e., effort orientation instead of outcome orientation (*Karmanye Vadhikarastu Ma Phaleshu Kadachana*) can have positive impact on stress, how much better would be the impact of total adoption of the entire philosophy and practice of *Yoga*? Our study here tries to find an answer to these two questions.

Also from the literature survey done so far, we can conclude that:

- Burnout is an outcome of a number of factors but the more important ones are internal psychological factors such as internal desires, insecurity, external locus of control, outcome orientation, etc.

- While attempts have been made in the past to measure the impact of each of these individual dispositional factors on job burnout, no research has been done to find out if the wisdom enshrined in our scriptures in the form of science of *Yoga* can help in alleviating a major part of burnout.
- There have been some attempts in the past to measure the impact of any one dimension of the *Yoga* philosophy (such as *Vipasana* or Transcendental Meditation) on stress, the overall effect of adoption of the *Yoga* way of life on job burnout has not been studied. So also, the link between *Yoga* and absence of burnout has not been well understood.

Taking cue from this, we pose the question, “Can adoption of a complete *Yoga* way of life reduce significantly the job burnout experienced by most executives? If so, can we empirically observe this phenomenon and provide relevant literature support to explain this? To the best of our knowledge, there is no empirical research available so far to answer these questions. Therefore, we hypothesize that managers who learn and adopt the *Yoga* way of life will be able to reduce their job burnout better than the others who engage in other things to improve their physical and mental progress. We set up an experiment to collect data and test the hypothesis.

## EMPIRICAL STUDY AND RESULTS

### Research Design

Grasim Industries Limited, a flagship company of the Aditya Birla Group, ranks among India’s largest private sector companies, with a consolidated net revenue of Rs.141 billion and a consolidated net profit of Rs.20 billion (FY2007). Starting as a textiles manufacturer in 1948, today Grasim’s businesses comprise viscose staple fibre (VSF), cement, sponge iron, chemicals, and textiles. Its core businesses are VSF and cement, which contribute to over 90 per cent of its revenues and operating profits. The Aditya Birla Group is the world’s largest producer of VSF, commanding a 21 per cent global market share. The company meets India’s entire domestic VSF requirements. Grasim’s VSF plants are located at Nagda in Madhya Pradesh, Kharach in Gujarat, and Harihar in Karnataka, with an aggregate capacity of 270,100 tonnes per annum.

This controlled experiment was conducted at Birla Cellulose, one of the units manufacturing viscose sta-

ple fibre owned by Grasim Industry, located at Kharach village near Bharuch. This unit has more than 120 people in the managerial cadre and more than 1,000 in the workers’ category. Most of them are staying in the township of the company, which facilitated the study. The VSF plant, where this study was conducted, was set up in 1996. The average total work experience of the sample group is 16.11 years.

The salient aspects of the study methodology are summarized below:

- The managers of the company were given the option of joining this experiment after explaining to them about the purpose and modality of this experiment and making clear to them the expectations of regularity, etc. Written consent for being a part of the experiment was obtained.
- Those who opted were initially divided into two equal groups of 42 each — Group I being called the *Yoga* group and Group II being called the physical exercise group, which was the control group for this experiment.
- The *Yoga* group was given 30 hours of *Yoga* practice (75 minutes every day) and 25 hours of theory lectures on the philosophy of *Yoga*. The theory lectures were given by the first author of this article and included topics such as definitions of *Yoga* way of life, implications of four types of *Yoga* (*Raja Yoga*, *Karma Yoga*, *Jnana Yoga*, and *Bhakti Yoga*) on life, analysis on aspects of true happiness in life, *Ashtanga Yoga* steps, central theme of universality of consciousness as given in *Vedanta*, etc. Practice was given for *asanas*, *pranayama*, *kriya*, and relaxation by a well-trained *Yoga* instructor.
- The control group was also given training of equal number of hours for normal physical work-out and lectures on success factors in life (based on modern thought and not *Yoga*). This was thought necessary in order to obviate the possibility of Hawthorne effect on the experiment group. The topics for theory given to this group included success and happiness, importance of attitude, self-image, good relationship with others, goal setting, power of sub-conscious mind, communication, motivation, and leadership. The practice given to this group was fast exercises such as spot-jogging, bending, body rotation, hand and leg movements, etc.

- In order to prove or disprove the hypotheses, job burnout was measured for both the groups, pre and post, with the help of standard self-reported questionnaire. In addition, measurement of certain physical parameters such as weight, BMI, BP, Blood Sugar, etc., was taken for all, both pre- and post-experiment. By far the most widely employed measure of burnout is the Maslach Burnout Inventory (MBI), (Maslach and Jackson, 1981), which was initially developed to gauge levels of burnout specifically among service professionals but in 1996 was modified for use with other occupations. The scale has the strongest psychometric properties and continues to be used most widely by researchers. It is a 22-item Likert type scale with response on a 5-point scale which was adapted in this case to 7 points ranging from 'completely agree' to 'completely disagree'. Exploratory factor analyses of the three MBI scales have tended to support the construct validity of the instrument, as well as its convergent and discriminant validity (Burke and Richardsen, 1993; Cordes and Dougherty, 1993).
- The pre-measurement of data was taken on September 17, 2007. The intervention to both the groups was simultaneously given between September 18 and October 24, 2007. The post-measurement of data was taken on October 24, 2007.
- Out of the group of 42 in both groups, there were some who did not attend any of the theory and practice classes on many days, and hence only top 30 (in terms of regularity) were included for both groups in the final sample for the analysis. This came to a minimum attendance figure of 65 per cent approximately for both groups. In short, people with less than 65 per cent aggregate attendance were excluded from both groups. The profile of the sample can be seen in Table 1.

Figure 1 schematically shows the study methodology and the group composition. The data collected was analysed using SPSS. The sample profile given in Table 1 indicates that 80 per cent and 86 per cent of the participants from *Yoga* and control group respectively are from the age group of 21-50, while the rest are above 50. Similarly, 20 per cent of the *Yoga* group and 17 per cent of the control group are from the top management (i.e., Deputy General Manager and above), while 57 per cent of the *Yoga* group and 63 per cent of the control group are the line level managers (Deputy Managers and Officers). Before proceeding with further analysis, the scale

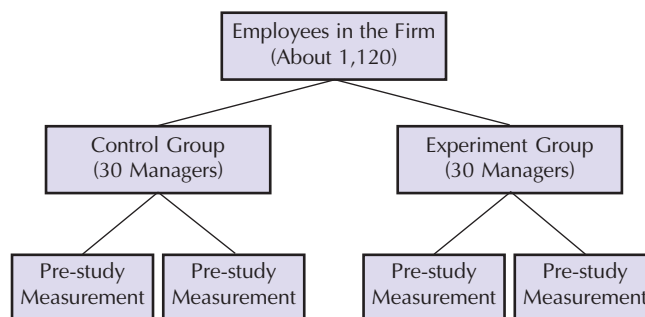
**Table 1: Profile of Sample**

		Group		Total
		Yoga	Physical	
Age	21-50	24 (80.0%)	26 (86.7%)	50 (83.3)
	51 and above	6 (20.0%)	4 (13.3%)	10 (16.7%)
Level	Line level	17 (56.7%)	19 (63.3%)	36 (60.0%)
	Middle level	7 (23.3%)	6 (20.0%)	13 (21.7%)
	Top level	6 (20.0%)	5 (16.7%)	11 (18.3%)

validity was established by computing the Chronbach's alpha. The pre-experiment construct (22-item scale) had a Chronbach's alpha of 0.83 while post-experiment data of MBI had an alpha value of 0.89.

**Figure 1: A Schematic Representation of the Study Plan**

The mean and standard deviation of MBI score, pre and



post, for both groups can be seen in Table 2. The paired *t*-test analysis of the pre- and post-experiment data for the *Yoga* group (Table 3) showed significant reduction of job burnout ( $p=0.000$ ). On the other hand, in the physical exercise group, the job burnout level went up after the experiment. Furthermore, the difference was statistically significant at  $p=0.008$ . One plausible explanation is that the schedule of attending the practical and theory classes of physical exercise could have put further pressure on the already tight schedule of the managers. The burnout level must therefore have gone up temporarily post-experiment.

Further analysis shows that while the difference in the average MBI between *Yoga* group and physical exercise group was not significant prior to the experiment, the same was statistically significant at the end of the experiment with  $p=0.000$ . (Table 4)



**Table 2: Average Scores of MBI (Group-wise, Pre and Post)**

Group		N	Mean	Std. Deviation	Std. Error Mean
AVGAMBI	1 Yoga	30	2.8624	0.87645	0.16002
Average Pre MBI	2 Physical Exercise	30	2.4782	0.68454	0.12498
AVGZMBI	1 Yoga	30	1.9693	0.79096	0.14441
Average Post MBI	2 Physical Exercise	30	2.8586	0.86580	0.15807

**Table 3: Group Separate Paired T Test for MBI Yoga and Physical Exercise Groups**

**Paired Samples Test**

		Paired Differences			t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean			
Pair 1	AVGAMBI Average Pre MBI (Minus)-AVGZMBI Average MBI	0.8931	0.65296	0.11921	7.492	29	0.000

a. Group = 1 Yoga

		Paired Differences			t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean			
Pair 1	AVGAMBI Average Pre MBI (Minus)-AVGZMBI Average Post MBI	-0.3804	0.72809	0.13293	-2.861	29	0.008

a. Group = 2 Physical Exercise

**Table 4: Independent Sample T-Test comparing the Two Groups for MBI at Pre- and Post-Intervention**

		Levene's Test for Quality of Variance		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
AVGAMBI Average Pre	Equal variance assumed	<b>0.614</b>	<b>0.436</b>	<b>1.892</b>	<b>58</b>	<b>0.063</b>	<b>0.3842</b>	<b>0.20304</b>
	Equal variance not assumed			1.892	54.785	0.064	0.3842	0.20304
AVGZMBI Average Post	Equal variance assumed	<b>0.561</b>	<b>0.457</b>	<b>-4.154</b>	<b>58</b>	<b>0.000</b>	<b>-0.8893</b>	<b>0.21410</b>
	Equal variance not assumed			-4.154	57.532	0.000	-0.8893	0.21410

**Yoga as a Viable Tool for Stress and Burnout Management**

According to Rama Swamy, Ballentine and Swami (1976), "Yoga psychology integrates behavioural and introspective approaches to growth. It provides a perspective in which one can become disengaged from involvement in the unhappy personalities he has created for himself and in the negative role he has adopted..... It moves quickly to a training programme for changing habits, thought patterns, and self concepts."

Job burnout is a result of two types of factors: Situational and Individual. The situational factors typically include job characteristics, occupational characteristics, and or-

ganizational characteristics. The individual factors identified in the previous research are: demographic characteristics, personality characteristics, and job attitude. It has been argued that low levels of hardiness, poor self-esteem, external locus of control, and an avoidant coping style typically constitute the profile of a stress-prone individual (Semmer, 1996). Obviously, the results from the burnout research confirm this personality profile. Research on the Big Five personality dimensions has found that burnout is linked to the dimension of neuroticism. Neuroticism includes trait anxiety, hostility, depression, self-consciousness, and vulnerability; neurotic individuals are emotionally unstable and prone to psychological distress.

People vary in the expectations they bring in to their job. In some cases, these expectations are very high, both in terms of nature of work (e.g., exciting, challenging, fun) and the likelihood of achieving success (e.g., curing patients, getting promoted). Presumably, high expectations lead people to work too hard and do too much, thus leading to exhaustion and eventual cynicism when the high effort does not yield the expected results.

The *Yoga* way of life, the concept presented in this paper, is an integrated approach to the changing physical, mental, vital, and emotional personality of an individual. It is aimed at making managers more evolved individuals with better understanding of their job situation in the overall context of life. The teachings of *Karma Yoga* are useful in changing the outcome orientation to effort orientation, and in reducing the managers' expectations from the job. Attitude of acceptance of all situations results in lesser friction and the resultant lesser job burnout.

The psychology of *Yoga* conceives self (*atman*) in terms of different levels of being. The inner-most core or *atman* is covered by a hierarchy of five sheaths or layers – the theory of *Panch Kosha*. *Annamaya Kosha* represents the gross physical body; *Pranmaya Kosha* consists of vital energy flow of the body; *Manomaya Kosha* is made up of mind including ego; *Vijnanamaya Kosha* is a sheath of intellect (ability to understand what is good for me); and *Anandmaya Kosha* is the circle of bliss in our personality. This continuation of layers corresponds to a sort of step-wise ladder, leading inward to the *atman*; the journey inward forms the basis of growth and development: Biological evolution from protozoan to man, psychological evolution from child to adult, consciousness enhancement from mere cognitive to universal consciousness, wherein there is no ego and there is realization that the concerns and needs of all people are the same, that what is good for one is good for all. In this growth process, feeling and emotions are accepted as having a place; they are not considered wrong or repressed but are transformed and redirected (Srinivas, 1994). Such a transformation in one's personality diminishes the job burnout of managers.

Rao (1983) has very succinctly traced the origin of stress in Indian thought. Going back to the *Samkhya* and *Yoga* systems, he has pointed out that there are two Sanskrit words - *klesha* and *dukha* which approximates stress. The

word *klesha* has its origin in the root *khis* which means to 'torment', 'cause pain' or to 'afflict.' *Klesha* is not a mental process but is a set of 'hindering load' on our mental process; it produces agitations which act as restrictions or hindrances. The *Samkhya Yoga* system explains that the fundamental non-cognition which leads to phenomenological stress is *avidya* (lack of true knowledge). This *avidya* leads to *asmita* (self-appraisal), *raga* (object appraisal), *dvesha* (threat appraisal) and *abhinivesha* (fear of death), which cause stress (*klesha*). The solution, according to Seer Patanjali, therefore lies in removing *avidya* by getting true knowledge of self. It is this true knowledge of self which changes one's perception towards the so-called *kleshas* or stressful situations. They no longer bother an individual.

The system of *Yoga* is analytical and not only helps the individual in understanding his own stress but also leads him to the roots of that stress. It makes an individual more aware of his situation and allows him to give considered rather than intuitive response to it. The amount of role stress is not as important for an individual's mental and physical health as the way he/she copes with stress. Coping styles or strategies may either be oriented towards avoiding stress or towards dealing with stress. (Pestonjee, 1999). This way *Yoga* helps one deal with stress in a better way.

Nagendra and Nagarathna (1988) have dealt with stress management in their book entitled, *New Perspectives in Stress Management*. According to them, the ancient Indian science of *Yoga* holds the key for combating this modern menace. Some modern methods of stress management and their limitations and the management of stress by *Yoga* are discussed in the book, for example, SMET (Self Management of Executive Tension) technique; QRT (Quick Relaxation Technique). These are some of the programmes developed by the Vivekananda Kendra for the management of stress which have been found to reduce stress significantly.

In most organizations, leaders play a pivotal role in driving performance. There are a variety of leadership training programmes being tried nowadays by successful companies, but the *Yoga* way of life is rarely taught. At the most, *Yogasanas* are being taught to the group as a part of morning physical work-out. There are a few companies that have of late started providing for meditation rooms at workplace, for the ease of managers who

want to go into solitude to sharpen their creativities.

It may be worthwhile to give systematic exposure of wisdom enshrined in our ancient scriptures to all managerial cadres of companies, which would help them personally as well as professionally. They can become better self-aware and self-regulated individuals, with a proper perspective of life and various relationships. The *Yoga* way of life is all about the correct attitude to life, which can result into reduced stress and job burnout for managers. In the Indian context, the assimilation of this knowledge may be better and easier, since the Indians have grown with all these concepts right from childhood.

'How can one proceed in this?' is a very important question. First of all, the top leaders of the company have to be convinced about the utility of this idea. They should themselves have the necessary trust in this philosophy and in the results it can bring. Some people may be unnecessarily apprehensive about the renunciation effect that introduction of this philosophy may have on the drive or killing instinct of their executives. Such apprehensions come out of wrong understanding of true concepts of *Yoga*. For example, far from being against 'goal orientation,' the concept of *Karma Yoga* is so dynamic in nature that it frees an individual from all worries and propels him to action immediately. Also a person who is not excessively worried about the results can only be a true risk-taker, who will take tough decisions in the best interest of his organization.

Once convinced about the utility of this kind of training, the tougher challenge lies in finding the right people to train company executives. Secondly, this has to be a continuous training which is repeated periodically. Thirdly, an atmosphere of the *Yoga* way of life has to be created through the company policy. The company poli-

cies have also to pass the test of the *Yoga* way in terms of complete adherence to ethical-moral code prescribed in *Yama* and *Niyama*.

## CONCLUSIONS

Job burnout is a debilitating psychological condition, which has serious repercussions for an individual's personal health as also on the organizational effectiveness. Earlier studies have addressed several aspects related to stress and burnout. However, our study confirms the useful role that the *Yoga* way of life can play in managing stress and burnout among managers. The results show a significant difference between those who are introduced to the practice of the *Yoga* way of life and others in burnout and stress. Among many suggested coping skills for stress, *Yoga* happens to be fitting in the best, mainly because of its ability to change positively individual responses to stress stimuli. However, in order to get the benefit of *Yoga* in its entirety, one has to adopt *Yoga* as a technique of life management. This would include not only the *Raj Yoga* practices of *asana*, *pranayama*, and meditation, but also imbibing the concept of detached action (*Karma Yoga*), trust in God's justice system (*Bhakti Yoga*), and seeking the knowledge of self (*Jnan Yoga*). Such an integrated approach can yield superior results for individual happiness and also for organizational success.

Based on our study, we are motivated to recommend similar experimental studies in multiple organizational settings to further refine these findings and insights. One approach is to conduct a similar study with large sample size, which may corroborate this initial attempt. Also in case of other similar experiments, different instruments for measuring job burnout may be tried, in order to take care of the social desirability. ✓

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*Yoga is invigoration in relaxation. Freedom in routine. Confidence through self control. Energy within and energy without.*

— Ymber Delecto