The occupational stress and risk of it among the employees

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Abstract: This paper is about occupational stress and management of this type of stress. Recently occupational stress is increasing due to globalization and global economic crisis which is affecting almost all countries, all professions and all categories of workers, as well as families and societies. Many organizations want to reduce and prevent the employee stress because they observe that it is a major drain on corporate productivity. Nobody is free from stress and it is not harmful always. In small quantities, stress is good; it can motivate us and help us to become more productive, but too much stress or a strong response to stress can be harmful. In this paper all experiences of jobs are discussed which affects human minds and bodies. The paper also discusses the risk management at workplace, prevention of stress and tips to stress management.
Keywords: Stress in teaching, Employee stress, Stress management, Occupational stress, Reduction and prevention of stress, Risk management.

INTRODUCTION

In the middle of the 19th century there was no stress in workplace and occupational stress grew in alarming over the last 40 years. Occupational stress is commonly defined as the harmful physical and emotional responses that occur when the demands of the job exceed the capabilities, needs or resources of the worker. Recently occupational stress is increasing due to globalization and global financial crisis which is affecting almost all countries, all professions and all categories of workers, as well as families and societies. As a result it becomes an essential issue in all work places. In 1989 formally identified the concept of increasing occupational stress, when the Commonwealth Commission for the Safety, Rehabilitation and Compensation of Commonwealth Employees initiated several research projects. These organizations realized that the percentage increase in claims for work related psychological injury has been greater than any other injury. Job stress can be defined as the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker, which lead to poor health and even injury (Rehman 2008). Work-related stress has aroused growing interest across Europe in recent years due to use of new information and communications technologies, growing diversity in the workplace and an increased mental workload (Landsbergis 2003). In Europe, occupational stress is considered as a risk-assessable disease (Clarke and Cooper 2000).

In the pursuit for organizational excellence, sometimes managers, officers and workers need to work under highly stressful circumstances, as a result they have been found to be experiencing high stress in the manufacturing sector (Jestin and Gampel 2002). There are many challenges in the work environments, such as, competition, continuous technological development, lack of space, lack of time, more uncontrollable factors, conflicting demands from organizational stakeholders (Hall and Savery 1986), increased use of participatory management and computerization (Murray and Forbes 1986), greater uncertainty, and others have resulted in higher occupational stress.

Many organizations want to reduce the employee stress because they observe that it is a major drain on corporate productivity. Employee assistance programs, stress management seminars, exercise programs, smoking cessation, nutrition programs and other health-related activities have helped hundreds of thousands of employees to manage their stress levels. They should help employees develop coping skills and positive lifestyles, and they should focus on the

characteristics of each local workplace situation (Barbara et al. n. d.). At the extreme, high demand, low control conditions are associated with significantly high rates result as the following situations (Barbara et al. n. d.):

- heart and cardiovascular problems,
- anxiety, depression and demoralization,
- alcohol and prescription or over-the-counter drug use, and
- susceptibility to a wide range of infectious diseases.

On the other hand at the extremes, the high-effort, low-reward condition is associated with the following situations (Barbara et al. n. d.):

- high rates of cardiovascular problems, and
- high incidence of anxiety, depression and conflict related problems.

The relation between absenteeism and psychosocial risks at workplace heavily, and is also influenced by low job security, which results a decrease in the number of personnel, tightening of productivity targets, unfair or inequitable leadership, intimidation, as well as a disparity between work demands and job control (Vahtera et al. 1997, 2000; Elovainio et al. 2002).

Most of the organizations suffer business loss through lost working days due to work related illness or accidents, absenteeism, staff turnover, lowered performance, and the associated, often hidden, costs of training replacement staff and the added burden placed on the colleagues of absent or under-performing staff (Clarke and Cooper 2000). According to Greenhaus et al. (1987), heavy workload lowers one's psychological well-being resulting in job stress.

DEFINITION OF STRESS

According to Van Wyk, stress is derived from the Latin word "strictus" that translates into taut, meaning stiffly strung (Olivier and Venter 2003). Stress can be defined in general term as people feel pressures in their own life. The stress due to work load can be defined as reluctance to come to work and a feeling of constant pressure associated with general physiological, psychological and behavioral stress symptoms. Hence stress is the harmful physical and emotional responses that occurs when the requirements of the job do not match the capabilities, resources, or needs the worker and he/she expressed that job stress can lead to poor health and even injury (Islam et al. 2012). Stress is increasing due to globalization and economic crisis, which affects all professions, and as well as families and societies, almost all countries of the world (Bharatai and Newman 1978).

Stress is our body's physical and emotional reaction that frightens, irritate, confuse, endanger, or excite us and place demands on the body. Stress can be caused by events that are pleasing as well as events that create crisis in our lives. But stress is a normal part of daily life and the effects of stress are not always negative.

In small quantities, stress is good; it can motivate us and help us to become more productive, but too much stress or a strong response to stress can be harmful. Stress can arise from any situation or thought that makes one feel frustrated, angry, or anxious. Everyone sees situations differently and has different coping skills, so, no two persons will respond exactly the same way to a particular situation. Situations that are considered stress provoking are known as stressors. Many professionals suggest that there is a difference between what we perceive as positive stress, and distress as negative stress. But we often use the term *stress* to describe negative situations. This leads many people to believe that all stress is bad for us, which is not true actually (Stress and Stress Management 2010).

Positive stress has the following characteristics (Stress and Stress Management 2010):

- motivates, focuses energy,
- is short-term,
- is perceived as within our coping abilities,
- feels exciting, and
- improves performance.

On the other hand negative stress has the following characteristics (Stress and Stress Management 2010):

- can be short or long-term,
- causes anxiety or concern,
- is perceived as outside of our coping abilities,
- feels unpleasant,
- decreases performance, and
- can lead to mental and physical problems.

The reaction of body to stress can be described by following three stages (Truch 1980):

Alarm Reaction Stage: the body identifies and first reacts to the stress. In this stage the body first releases hormones that help in the defense against the stressor.

Resistance Stage: the body continues to resist the stressors as they persist. If the stressors continue and there is a consistent state of resistance, there is potential to move into the third and final stage.

Exhaustion Stage: the body and mind are no longer able to make the necessary adjustments to resist the stressors and there is physical and/or mental exhaustion.

WHAT IS OCCUPATIONAL STRESS?

The National Institute for Occupational Safety and Health (NIOSH) expresses that job stress can be defined as the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the workers. Job stress can lead to poor health and even injury. Job stress results when the requirements of the job do not match the capabilities, resources, or needs of the workers.

Workplace stress is the due to the interaction between a person and their work environment. Matters outside the workplace, such as, family problems, a second job, or poor mental or physical health, can cause stress. Beehr and Newman (1978) define occupational stress as "A condition arising from the interaction of people and their jobs and characterized by changes within people that force them to deviate from their normal functioning." Occupational stress affects directly organizational commitment as well as physical health and psychological well being of individuals.

According to the American Institute of Stress (AIS), common causes of workplace stress include long working hours, feelings of being treated unfairly, insufficient acknowledgement or reward for a job well done, lack of job security, office politics, and most importantly, increased demands to accomplish assignments without sufficient authority and/or resources.

NIOSH (2008) provided the following workplace stressors can result in stress:

- job demands such as work overload, long work hours, lack of task control, role ambiguity,
- organizational factors such as poor interpersonal relations, unfair management practices,
- financial and economic factors such as unsatisfied salary and increment etc.,
- conflict between work and family roles and responsibilities,

- training and career development issues such as lack of opportunity for growth or promotion,
- poor organizational climate such as lack of management commitment to core values, conflicting communication styles, etc. and
- inadequate staffing levels, shift of work, time pressure, lack of social support at workplace.

Murphy (1988) proposed a model which classifies interventions according to their level, namely the primary level (i.e., reducing sources of stress), the secondary level (i.e., improving stress management by the individual) and the tertiary level (i.e., rehabilitation and treatment).

MEASUREMENT OF OCCUPATIONAL STRESS

Stress is measured through ASSET, a new Organizational Screening Tool (OST) which is the advanced form of the well-established and extensively used Occupational Stress Indicator (OSI), (Cooper et al. 1988, Cartwright and Cooper 2002). ASSET is a sorter and applicable to all occupations has been developed and has been used successfully in health care organizations with adequate evidence of construct and discriminated validity, which is a very effective tool in diagnosing occupational stress, combining both the sources and the effects of stress.

ASSET conceptualizes occupational stress as influenced by a variety of sources, such as work relationships, work-life balance, overload, job security, control, resources and communication, pay and benefits, as well as an evaluation of the employee's perception of the potential sources of stress that relate to the fundamental nature of the job itself named Aspects of the Job. ASSET divides organizational commitment in two sub-scales as follows (Vakola and Nikolaou 2005):

- Commitment of the Organization to the Employee (COE), and
- Commitment of the Employee to the Organization (CEO).

High score in both scales indicates increased commitment. The former measures the extent to which individuals feel that their organization is committed to them, on the other hand the latter measures the degree that employees feel loyal and committed to the organization (Vakola and Nikolaou 2005).

BASIC SYMPTOMS OF OCCUPATIONAL STRESS

Occupational stress is a pattern of reactions in workplace that occurs when employees are presented with work demands which are not matched to their knowledge, skills or abilities, and which challenge their ability to cope. It may create physiological problems such as, eating disorders, irritability, headaches, hair loss, loss of sex drive, serious physical illness, increased heartbeat and blood pressure, palpitations and chest discomfort, breathlessness and hyperventilating, muscle ache, sleeping problems, dryness of throat and mouth, sweaty palms, urinating frequently, diarrhea, indigestion, stomach ulcers, etc. It may show behavioral problems such as, impulsive behavior, eating more or less, easily distracted, speech problems, sleeping too much or too little, change in personality, irritable or aggressive, grinding of teeth, increasing smoking and use of drugs and alcohol, burnout, nervous habits, increased errors, absenteeism, lack of concentration, etc. It also display psychological symptoms such as, physical trauma, moodiness, anxiety, fear and tension, memory problems, depression, dissatisfactions, seeing only the negative, panicky, poor judgment, worries and catastrophic thoughts, sense of loneliness or isolation, overestimation of danger, etc. (Islam et al. 2012).

Causes of work stress have been linked to the work itself, for example, increasing demands, less freedom to control one's work, and insufficient capacity to cope with time pressures, etc.

(Houtman 2007). Sources of occupational stress have been categorized by Cooper and Marshall (1976) as follows:

- role in the organization,
- intrinsic to the job,
- relationships at work,
- career development,
- organizational structure and climate, and
- home-work interface.

The effect of excessive stress and strain on brain chemistry due to occupation is experienced as mood, usually as depression, anxiety or anger. If these changes in brain chemistry and mood persist, immune system deficiencies will worsen and finally more serious illnesses will occur (Barbara et al. n. d.).

Occupational Stress Related Illness

The feeling of being tired and having a lack of energy all the time is considered as the most common symptom of stress. Other symptoms are insomnia, anxiety, tension headaches, backache, depressive features, indigestion and constipation, to mention but a few (Aldwin 1994). Work-related stress has also been associated with a number of other ill-health outcomes, such as cardiovascular diseases (Kivimäki et al. 2002), musculoskeletal disorders, particularly back problems (Hoogendoorn et al. 2000) and neck-shoulder-arm-wrist-hand problems (Ariëns et al. 2001), as well as absence from work (Houtman et al. 1999).

The people who work under stressful conditions such as work conflicts or lack of social support, autonomy and control experience they must face the following physical and mental effects (Lluminari 2004):

- heart and cardiovascular problems,
- anxiety, depression and demoralization,
- substance abuse,
- certain cancers,
- infectious diseases,
- conflicts injuries, and
- back pain.

Some people lose their hearing more quickly than others when exposed to noise; but exposure to excess noise for prolonged periods will eventually make everyone deaf. Short-term stress may make a person aware of being challenged and motivated but long-term stress can harm both for the person and the organization (Department of Labours Workinfo Service 2003).

Due to stress the nervous system is aroused and hormones are released to sharpen the senses, quicken the pulse, deepen respiration, and tense the muscles.

STRESS IN THE WORKPLACE

Levinson (1970) expresses about the work of an individual as, "A man devotes nearly half of his waking hours to his job. It is said, he both works to live and lives to work". In Canada, 30.8% of employees confirm that most of their working days are considerably or extremely stressful (Statistics Canada 2003). Obviously low job satisfaction reduced productivity (Cotton and Hart 2003) and increased in occupational accidents (Clarke and Cooper 2004).

NIOSH (2008) estimates the cause of stress as follows:

- Heavy workload, infrequent rest breaks, long work hours and shift work; hectic and routine tasks that have little inherent meaning, do not utilize workers' skills, and provide little sense of control.
- Lack of participation by workers in decision making, poor communication in the organization, lack of family friendly policies.
- Poor social environment and lack of support or help from coworkers and supervisors.
- Conflicting or uncertain job expectations, too much responsibility, too many "hats to wear."
- Job insecurity and lack of opportunity for growth, advancement, or promotion; rapid changes for which workers are unprepared.
- Unpleasant or dangerous physical conditions such as crowding, noise, air pollution, or ergonomic problems.

According to statistics from the American Psychological Association (APA), a startling two-thirds of Americans say that work is a main source of stress in their lives (APA 2007). According to the APA, the top stressors for people in the workplace are as follows:

- low salaries (43%),
- heavy workloads (43%),
- lack of opportunity for growth and advancement (43%),
- unrealistic job expectations (40%), and
- job security (34%).

More than 60% of workers in one study reported that noise such as coworker conversations enhanced by open offices caused added distraction and stress. The downturned economy and corresponding job layoffs, salary cuts, and heavier workloads have added to the stress in workers' personal lives, especially as they confront strained financial issues and compressed time allotment for family obligations.

Women are more likely than men to experience physical symptoms of stress, such as fatigue, irritability, headaches and depression. Women are also more likely than men to cope with job stress with unhealthy behaviors, such as poor eating habits.

Everyone encounters challenges, threats, or annoyance in the workplace. Stress in the workplace threatens our pride, our prestige, and our position at work, our place in the family or society and our self-image (Auerbach and Gramling 1998). Frequent transfer in jobs and job security are also stressful for employees. Some jobs have to be performed in difficult and unpleasant working conditions such as extremes of temperature, loud noise, crowding, poor lighting, or with old and inefficient machinery.

Some people are involved with more than one work, so that they have to remain in more stress. Almost all of them face stress from home also; as a result they suffer many psychological problems. Female officer or workers have to maintain both occupation and home related problems. On the other hand very few male are involved with family matters and they have to face only occupational stress.

More workers or officers do more works in workplaces and overload can be both quantitative and qualitative. Quantitative overload stress occurs when managers are asked to do more work, in a limited period, than they are able to do. Qualitative overload stress occurs when managers believe they lack the required skills, ability or resources to perform a given job. On the other hand quantitative underload leads to boredom that occurs when boring, routine, repetitive jobs are associated with chronic lack of mental stimulation (Cooper 1983)

Occupational stress risks have been increasing for many years, but at the end of the last decade it increases alarming due to global financial crisis and globalization. By the end of the 1990s in many countries there has been a combination of increasing and stabilizing job demands, together with decreasing job sovereignty which would have resulted in an increasingly stressful situation within countries. High and increasing quantitative demands, combined with low or decreasing control over work pace, increase stress-related outcomes. Some countries showed an increase in stress-related health problems at work, but it was also observed that workers who developed health problems had left the labor market on long-term absence, or were receiving disability pensions (Houtman 2007).

Stresses at work are well known factors for low motivation and morale decrease in performance, high turnover and sick-leave, accidents, low job satisfaction, low quality products and services, poor internal communication and conflicts etc. (Schabracq and Cooper 2000, Murphy 1995).

Stress management programs teach workers about the nature and sources of stress, the effects of stress on health, and personal skills to reduce stress. Orpen (1991) shows that major source of stress comes from the occupational environment; proponents of this view tend to argue that role holders in certain occupation, irrespective of individual differences, are much more likely to experience stress.

STRESS ON ORGANIZATIONAL AND OCCUPATIONAL CHANGE

Stress due to organizational and occupational change is increasing among the employees. Due to globalization and competitiveness among the organizations almost every organization changes in the infrastructure of it. When the authority of any organization takes attempt to change partial or full structure then the employees suffers from stress. The main cause of change in organization of the employees is the non-adjust in their workplace (Vakola and Nikolaou 2005). The organizational change efforts can be very stressful experience for individuals (Elrod and Tippett 2002). Employee attitudes toward change can impact their morale, productivity and turnover intentions (Eby et al. 2000). There are many emotional states that a person can experience during change processes, such as equilibrium, denial, anger, bargaining, chaos, depression, resignation, openness, readiness and re-emergence (Perlman and Takacs 1990). Lau and Woodman (1995) expressed that a highly committed employee is more willing to accept organizational change if it is perceived to be beneficial. Guest (1987) recommended that organizational commitment mediated the total causal effects of positive affectivity, job security, job satisfaction, job motivation and environmental opportunity on organizational change.

NIOSH (2008) showed that the most effective way of reducing occupational stress is to eliminate the stressors by redesigning jobs or making organizational changes as follows:

- reduce uncertainty about career development and future employment prospects,
- provide opportunities for social interaction among workers,
- team process or worker participatory methods give workers opportunities to participate in decisions and actions affecting their jobs,
- workers receive clear information about their tasks and role in the department,
- successful in improving job satisfaction and reducing turnover, absenteeism, and job stress,
- give workers opportunities to participate in decisions and actions affecting their jobs, and
- ensure that the workload is in line with workers' capabilities and resources.

Recently occupation change is a common matter among the employees. This is happening due to non-satisfaction in the previous occupation. After change of the old occupation the employees face stress. The major problems in occupational change are as follows:

- better opportunities in the new occupation,
- high salary in the new occupation,
- comfortable in the new occupation,
- non-cooperation among the coworkers in the previous occupation,
- deprive from the promotion in the previous occupation,
- non-increment of salaries in the previous occupation,
- distance of workplace from the residence in the previous occupation,
- noisy and dirty environment in the previous occupation,
- overload and unfair pay in the previous occupation,
- lack of a socially supportive environment in the previous occupation,
- nepotism in the previous occupation, and
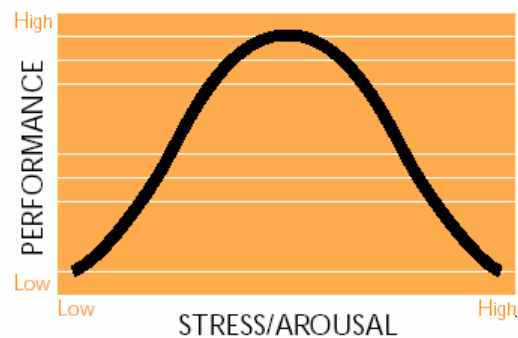- racial problem in the previous occupation.

STRESS IN TEACHING PROFESSION

As like other professions teachers have been leaving their profession at the start of the 21st century, as the most cause problems with rising stress. Most alarming is that 30% of all beginner teachers are leaving their profession and annual teacher turnover is higher when compared with turnover of all other occupations (Russell 2000). A report in June 2002 issue of the National Association of Secondary School Principles of the USA showed that annual turnover of professions other than teaching averaged 11% while annual turnover for the teaching profession was 15.7% (Ingersoll 2002). If stress is very low then the performance of work is also very low, for the medium stress performance of work is very high and for the high stress performance of work is also very low (figure-1). Upadhyay and Singh (1999) expressed that the executive as well as the teachers experienced a moderate level of stress, the executives experienced more stress than the teachers realized.

Teachers' occupational stressor means their stress source which changes stress intensity related to teaching or teaching context of the individual. There are three aspects of it as follows (Liu and Hu 2010):

1. The first aspect deals with school organizational factor, such as mission requirements, role demands, role ambiguity, role confliction, work overload and organization change.
2. The second involves individual factor, for example, individual ability, individual expectation, character feature and relationship among the groups.
3. The third relates to environmental factor, i.e., uncertainty of economics, politics and technology.

Figure1: Relation between stress and performance of work, Source: Mrozek (n.d.).

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The common stressors teachers experience frequently worldwide are as follows:
- poor classroom working conditions i.e., small room but many students,
- job insecurity,
- teachers bring work at home daily and no time to finish at work,
- lack of adequate instructional materials and teaching resources,
- low salaries,
- little opportunity for promotions,
- annual incremental raises not in pace with cost of living,
- heavy workload gives teachers no time to relax within a day,
- physical and mental abuse by students
- conflict between amount of time to teach and curriculum,
- responsible to Administration or Board Objectives and Policies, and
- lack of proper facilities within a school such as heating or cooling, lighting, media facilities, noise, room structure etc.

Teacher Burnout

Burnout, a concept coined during the 1970's, is a concern across many disciplines and of international interest. Maslach, a noted researcher on burnout and the author of the Maslach Burnout Inventory, defines burnout as "a syndrome of emotional exhaustion and cynicism that occurs frequently among individuals who do 'people-work' of some kind. A key aspect of the burnout syndrome is increased feelings of emotional exhaustion." Burnout is depression, feelings of alienation, helplessness and hopelessness, loss of idealism and spirit, and physical and emotional drain (Soderfelt and Soderfelt 1995). Burnout is a prolonged response to chronic emotional and interpersonal stressors on the occupation, and is defined by the three dimensions of exhaustion, cynicism, and inefficacy. Teachers are leaving their profession and are joining in government jobs and private firms, some are seeking early retirement, and others are simply dropping out. A great number of teachers have laid down their pointers and chalk largely globally because of decreased funding, limited personal control over their teaching, and lack of societal commitment. Burnout is a more serious problem to the profession than job change or early retirement because it renders a teacher unable to cope, although he or she remains in the classroom. This is due to limited resources, long hours, marginal working conditions, and often unreasonable demands from those receiving services, lead to chronic stress, and ultimately, burnout. Those who experience burnout typically find that they are tired, drained, and without enthusiasm.

A psychological model of how stress leads to burnout describes it as a syndrome resulting from teachers' inability to protect themselves against threats to their self esteem and well being. When the coping mechanisms fail to stem the demands then stress increases and threatens the teachers' mental and physical well-being ultimately leading to teachers quitting or burning out (Kyriacou and Sutcliffe 1978). Cox and Brockley (1984) express that "Work appears as a major source of stress for working people, teachers appear to experience more stress through work than non-teachers". The average length of a teaching career in the USA is now down to eleven years (Stephens 2001) and one quarter of all beginning teachers leave teaching within four years (Benner 2000).

Coping Strategies of Stress

If any teacher feels stress seriously he must take steps to cope them. There are some ways of coping of stress as follows:

- Identify co-workers, friends, and family members which are helpful and can talk to them and need to make social plans with them. Sometimes campus-wide social activities can reduce the stress.
- Practice deep breathing, visualization, meditation, yoga, stretching or some other techniques which helps to relax.
- Take a break from whenever is causing the stress and take parts in laugh, play, sing, fun and praying.
- Take a healthy balance diet and enough sleep. Exercise moderately at least two to three times a week. Remember that caffeine, alcohol, cigarettes and drugs do not help solve your problems and actually contribute to stress.
- Arrange a picnic for mental refreshment which reduces stress and creates good teaching environment in the campus.
- Teachers' working conditions should be improved by providing some social facilities such as satellite TV, computers with Internet connections.
- The school curriculum should be restructured to include both teachers-centered and students-centered co-curricular activities as regards to inter-house sporting activities in the schools.

RISK MANAGEMENT AT WORKPLACE

Many definitions of risk and alternative approaches to risk management exist but there is no universally accepted definition of risk (Singleton and Hovden 1987, Rowe 1990). A risk can be conceptualized as having two basic elements, one relating to the probability that an event, decision or activity will have undesirable negative outcomes, and the other relating to the severity of those outcomes as follows (Glendon and McKenna 1995):

Risk = Probability of occurrence of an event × Consequences for a given time period.

The level of risk or risk factor associated with the likely negative effects of a given stressor can be calculated as follows:

$$\text{Risk factor, } RF = E_s \times C_s, \qquad\qquad (1)$$

where, E_s = the perceived level of the exposure (stressor) and C_s = consequences (the correlation between stressor and stress outcome). Values of C_s are obtained by calculating the coefficient of correlation between the stressors and stress outcomes, r and then converting r into r^2, and then converting the value of r^2 into percent i.e., $C_s = r^2 \times 100$. McFarlane (1997) conducted a stress audit within a leading United Kingdom (UK) retail organization. He

calculated the perceived level of the exposure, $E_s = 9.85$ and the correlation between workload and mental health, $r = 0.09$ and $r^2 = 0.0081$, so that $C_s = r^2 \times 100 = 0.81$, and hence by (1) the risk factor can be calculated as follows:

$$RF = E_s \times C_s = 9.85 \times 0.81 \approx 8.$$

The decision as to the acceptability of a risk is determined by considering the cost of lowering the risk level, against the benefits from a reduction in risk.

Normative risk factors for an industry can be calculated, where the norm for exposure, E_{norm} and for consequences, C_{norm} is known as:

$$RF_{norm} = E_{norm} \times C_{norm}. \qquad (2)$$

Clarke and Cooper (2000) calculated RF_{norm} from an illustrative data as follows:

The norm Pressure Management Indicator (PMI) score = 12.46, so that, $E_{norm} = 12.46$, the correlation between workload and the General Health Questionnaire (GHQ) is $r = 0.05$, $r^2 = 0.0025$, $C_{norm} = r^2 \times 100 = 0.25$, and hence by (2) the risk norm factor can be calculated as follows:

$$RF_{norm} = 12.46 \times 0.25 \approx 3,$$

where the GHQ is a well-validated instrument that measures symptoms of mental ill-health (Goldberg 1978) and PMI measures the level of perceived stress, can be used to obtain E_{norm} for a particular sample (Williams and Cooper 1996).

PREVENTION OF OCCUPATIONAL STRESS

To prevent the occupational stress it is possible to identify the top 10 factors for success (Kompier and Cooper 1999, Kompier et al. 2000, Kompier and Kristensen 2001, Ingram and Pilla 2007) as follows:

- involve employees in the intervention,
- acknowledge them as experts,
- management must commit to the process,
- include everybody in matters of organizational change, and ensure compliance,
- approach the issue step by step,
- establish a clear structure of tasks and responsibilities,
- keep to a tight schedule,
- use different types of measures,
- treat work-related stress as a normal issue, and
- after-care.

The St. Paul Fire and Marine Insurance Company (1992) conducted several studies on the effects of stress prevention programs in hospital settings. Program activities included the following three steps to prevent stress:

- employee and management education on job stress,
- changes in hospital policies and procedures to reduce organizational sources of stress, and
- establishment of employee assistance programs.

Sauter et al. (1990) advised to change the organization to prevent job stress as follows:

- Ensure that the workload is in line with workers' capabilities and resources.

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- Design jobs to provide meaning, stimulation, and opportunities for workers to use their skills.
- Clearly define workers' roles and responsibilities.
- Give workers opportunities to participate in decisions and actions affecting their jobs.
- Improve communications such as reduce uncertainty about career development and future employment prospects.
- Provide opportunities for social interaction among workers.
- Establish work schedules those are compatible with demands and responsibilities outside the job.

NIOSH (1999) observed that low morale, health and job complaints, and employee turnover often provide the first signs of job stress. It advised the following statements to prevent stress in the workplace:

- hold group discussions among managers, labor representatives, and employees can provide rich sources of information,
- design formal surveys for gathering input about stressful job conditions from large numbers of employees,
- measure employee perceptions of job conditions, stress, health, and satisfaction,
- collect objective data,
- analyze data to identify problem locations and stressful job conditions,
- target source of stress for change,
- propose and prioritize intervention strategies,
- communicate planned interventions to employees,
- implement interventions,
- short-term evaluations might be done quarterly to provide an early indication of program effectiveness or possible need for redirection,
- long-term evaluations are often conducted annually and are necessary to determine whether interventions produce lasting effects, and
- include objective measures.

Costa (1995) suggested some key points to prevent stress in the workplace as follows:

- legislation, international and national directives and social support,
- improving job planning and reliability of the work systems,
- reduction of working times and arrangement of working teams and rest pauses in relation to the workload,
- arrangement of shift schedules according to psycho-physiological and social criteria,
- participation in decision making,
- improving the work environment such as sufficient lighting and reducing noise,
- developing microclimatic conditions and indoor air quality,
- arranging workplaces according to ergonomic criteria
- working with visual displays units,
- individual ways of coping with stress,
- counseling and other supporting measures at company level, and
- appropriate medical surveillance.

TIPS OF STRESS MANAGEMENT

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The emotional and physical disorders that have been linked to stress including depression, anxiety, heart attacks, stroke, hypertension, immune system disturbances that increase susceptibility to infections, a host of viral linked disorders ranging from the common cold to herpes to certain cancers, as well as autoimmune diseases like rheumatoid arthritis and multiple sclerosis (Stress and Stress Management 2010). Hence we need to control the stresses which are harmful to our mind and body. Wilson (2012) developed 15 timely tips for stress management as follows:

1. **Spend Time Planning and Organizing:** Using time wisely to think and plan is time well-spent. In fact, if you fail to take time for planning, you are, in effect, planning to fail. Organize in a way that makes sense to you. If you need color and pictures, use a lot on your calendar or planning book. Some people need to have papers filed away; others get their creative energy from their piles. So forget the "shoulds" and organize your way.

2. **Set Goals:** Goals provide direction to your life and determine how you spend your time. When asked the secret to amassing such a fortune, one of the famous and wealthy Hunt brothers from Texas replied: "First you've got to decide what you want." Set goals that are specific, measurable, realistic and achievable. Your optimum goals are those that cause you to "stretch" but not "break" as you strive for achievement.

3. **Prioritize:** Use the "80-20 Rule" originated by Italian economist Vilfredo Pareto that states, "80 percent of the reward comes from 20 percent of the effort." The trick to prioritizing is to isolate and to identify that valuable 20 percent. Once identified, prioritize your time to work on those items with the greatest reward. Prioritize by color, number or letter, whichever method makes the most sense to you. Flagging items with a deadline is another idea to help you stick to your priorities.

4. **Use a "To Do" List:** Some people thrive daily by using a to-do list created the day before or the first thing in the morning. Such people may combine a to-do list with a calendar or schedule, or use a "running" list that is continuously updated. The key is to use the method that works best for you. Don't be afraid to try a new system. You just might find one that works even better than your present one!

5. **Be Flexible:** Allow time for interruptions and distractions. Time management experts such as Alan Lakein suggest planning for just 50 percent or less of one's time to allow flexibility to handle interruptions or unplanned emergencies. Schedule routine tasks when you expect to be interrupted. Save or make larger blocks of time for your priorities. When interrupted and to get you back on track fast, ask Lakein's crucial question, "What is the most important thing I can be doing with my time right now?"

6. **Consider Your Biological Prime Time:** That's the time of day when you are at your best. Are you a "morning person," a "night owl," or a late afternoon "whiz?" Knowing your best production time will help you to use that time of day to tackle your priorities.

7. **Do the Right Thing Right:** Noted management expert Peter Drucker, says, "Doing the right thing is more important than doing things right." Doing the right thing is effectiveness; doing things right is efficiency. Focus first on effectiveness, then concentrate on efficiency.

8. **Eliminate the Urgent:** Urgent tasks have short-term consequences, while important tasks are those with long-term, goal-related implications. Work toward reducing the urgent things you must do so you'll have time for important tasks.

Flagging or highlighting items on your to-do list or attaching a deadline to each item may help keep important items from becoming emergencies.

9. **Practice the Art of Intelligent Neglect:** Eliminate trivial tasks or those tasks that do not have long-term consequences from your life. Can you delegate or eliminate any task on your to-do list? Work on those tasks that you alone can do.

10. **Avoid Being a Perfectionist:** In the Malaysian culture, only the gods are considered capable of producing anything perfect. Whenever something is made, a flaw is left on purpose so the gods will not be offended. Yes, some things need to be closer to perfect than others; but perfectionism or paying unnecessary attention to detail can be a form of procrastination.

11. **Conquer Procrastination:** One technique to try is the "Swiss cheese" method described by Alan Lakein. When you are avoiding something, break it into smaller tasks and do just one of the smaller tasks or set a timer and work on the big task for just 15 minutes. By doing a little at a time, eventually, you'll reach a point where you'll want to finish.

12. **Learn to Say "NO":** Such a small word and yet, so hard to say. Focusing on your goals may help. Blocking time for important, unscheduled priorities such as family and friends can also help. But first you must be convinced that you and your priorities are important that is the difficulty in learning how to say "no". Once convinced of their importance, saying "no" to the unimportant things in life gets easier.

13. **Reward Yourself:** Even for small successes, celebrate the achievement of goals. Promise yourself a reward for completing each task or job. Then keep your promise to yourself and indulge in your reward. Doing so will help you maintain the necessary balance in life between work and play. As leadership expert Ann McGee-Cooper says, "If we learn to balance excellence in work with excellence in play, fun, and relaxation, our lives become happier, healthier, and a great deal more creative."

14. **Learn Not to Have to Work in a Crisis, Anticipate Some Common Actions or Activities:** Through proper planning and by working systematically, you can perform tasks quickly, efficiently and in a timely fashion. Try to develop short cuts to cut down on time when performing routine   tasks or activities. Developing a contingency plan will also help you to avoid any pitfalls. Be sure to ask "what if?" when making decisions or developing a course of action. Try to think of at least three ways to handle a crisis, and then put those solutions into practice when appropriate. Don't forget to revise your contingency plan as needed.

15. **Stress in the Extreme Can Be a Killer:** To reduce stress, reduce your expectations or work on increasing your results and reality (Wetmore 2009).

CONCLUSION

We have observed that nobody is free from stress, everybody under the stress a little bit or more. Stress is not harmful but over stress is harmful and creates many diseases. We have discussed both the positive and negative sides of stress. Occupational stress is become an essential factor in the worldwide due to competition among the nations to face economic crisis. Stress creates risk in workplace and we have tried to discuss risk management at workplace. In the 21st century the stress in teaching profession increases globally which will create negative effect in the education sector. So that governments and social organizations must be conscious to reduce the stress in the teaching profession. It is happy news to us that many organizations are

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working to prevent and reduce stress in occupation. We have discussed the ways of reduction and prevention of stress at workplace.

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