

CHAPTER 2

LITERATURE REVIEW

2.1 Stress at Workplace

Stress at workplace is often referred to as ‘occupational stress’. The basic rationale underpinning the concept is that the work situation has certain demands, and that problems in meeting these can lead to illness or psychological distress. Occupational stress is a major health problem for both individual employees and organizations, and can lead to burnout, illness, labour turnover, absenteeism, poor morale and reduced efficiency and performance. Hence, stress is considered as one of the contributing factors that influenced the efficiency, absenteeism, increase in health care costs and other unfavourable results that associated with specific situations, characteristics of the work environment, and individual perceptions and reactions in the context of the workplace (Stacciarini and Troccoli, 2003).

According to Lazarus and Folkman (1984), stress occurs when the demands that are being placed upon a person tax or exceed available resources as appraised by the individual involved. When a stressful situation actually occurs, one often forgets all of the knowledge obtained on stress and how to effectively manage it. Such a response is part of being human since man is vulnerable like all other living things.

The workplace stands out as a potentially important source of stress purely because of the amount of time that is spent in this setting. However, the stress inducing features of the workplace go beyond simply the time involved. With the

financial security and opportunities for advancement of individuals being dependent upon their performance, the pressure to perform often makes the work situation potentially very stressful (Faulkner and Patiar, 1997).

Stress in the workplace has become of universal concern to all managers and administrators where in some work groups, stress has become epidemic. In the United States, health care professionals, technicians, managers of all sorts, military officers, corporate executives, sports coaches, entertainers, farmers, recreational directors and members of the clergy have been identified as being most prone to workplace stress.

By comparison, in Japan, health care providers, production factory workers, VCT workers, salesmen, middle managers of enterprises, and educators at all levels have been identified as being most likely to encounter workplace stress. However there are differences between Japan and the United States, in regards to work related stress, likely is due to the cultural differences that exist within the work environments. What workers in one country perceive as stressful, workers in the other country may not perceive as stressful. In addition, the role expectations in the respective work settings are likely to differ between the two countries. Unfortunately, limited research and publications existence that compare work stress across cultures within the work environment (Lambert and Lambert, 2001).

High levels of stress may also result in increased staff turnover, higher accident rates, more physical ill-health, more psychological ill-health and absenteeism. Absenteeism in particular has become a major concern in industrialized

countries because of its economical consequences. For instance, sickness absence figures show that the loss of working days for industry in the US amounts to about 550 million (3–7%) each year and for the UK this figure is 3.7% of the total number of working days (Van Rhenen et al., 2007).

Stress and job burnout also are related to specific demands of work, including overload, variations in workload, role conflict, and role ambiguity. Workers who perceive a high level of stress and resulting job burnout have poor coping responses and lack of job satisfaction, which often erode commitment to the organization and lead to higher turnover (Lee and Ashforth, 1996).

Abrahamsson (2000) explained that working environment problems should be regarded as production problems in order to achieve the economic gains. Human suffering and economic losses (the loss of man power and productivity, increased cost towards medical expenses, compensation and other hidden liabilities such as replacement labour and modification of workplace) are the constant reminders to implement better organizational work design, planning of work time, work safety standard and control technologies (Nag and Patel, 1998).

Gray (2000) stated that occupational health experts and others concerned with employee health and medical expenses are beginning to recognize that the hidden costs of stress are enormous. Apparently work-related stress is estimated to be the biggest occupational health problem in the United Kingdom (UK), after

musculoskeletal disorders such as back problems and stress related sickness absences cost an estimated £4 billion annually.

2.2. How Stress is Caused

Signs of stress can be seen in people’s behaviour, especially in changes in behaviour (Table 2.1). Acute responses to stress may be in the areas of feelings (for example, anxiety, depression, irritability, fatigue), behaviour (for example, being withdrawn, aggressive, tearful, unmotivated), thinking (for example, difficulties of concentration and problem solving) or physical symptoms (for example, palpitations, nausea, headaches). If stress persists, there are changes in neuroendocrine, cardiovascular, autonomic and immunological functioning, leading to mental and physical ill health (for example anxiety, depression, heart disease).

Table 2.1: Signs Of Stress

How you feel (emotion)	How you think (cognitions)
<ul style="list-style-type: none"> • Anxious • Depressed/tired • Angry/irritable/frustrated • Apathetic/bored 	<ul style="list-style-type: none"> Poor concentration and memory Poor organisation and decision making Less creative in problem solving Hypersensitive to criticism
<p>How you behave</p> <ul style="list-style-type: none"> • Have accident/make mistake • Eating/sleeping problems • Take drugs (e.g tobacco, alcohol) • Problematic social behaviour (e.g. withdrawal, aggression) 	<p>Your body</p> <ul style="list-style-type: none"> Sweating, dizzy, nauseous, breathless Aches and pains Frequent infections Asthma, ulcers, skin complaints, cardiac problems.

Source: Michie, S .2002. *Work causes and management of stress at work*. Occup. Environ. Med. 59;67-72.

The degree of stress experienced according to Michie (2002) depends on the functioning of two protective physiological mechanisms:

- “Alarm reaction”. When confronted with a threat to our safety, our first response is physiological arousal: our muscles tense and breathing and heart rate become more rapid. This serves us well when the threat is the proverbial bull in the field rushing towards us. We either fight or flee. Present day threats tend to be more psychological—for example, unjustified verbal attack by a superior at work. It is usually not socially acceptable to act by “fight or flight”, and an alternative means of expressing the resultant emotional and physical energy is required. This falls in the arena of assertive communication.
- “Adaptation”. The second adaptive mechanism allows us to cease responding when we learn that stimuli in the environment are no longer a threat to our safety. For example, when we first spend time in a house near a railway line, our response to trains hurtling past is to be startled, as described above. Over time, our response dwindles. If this process did not function, we would eventually collapse from physical wear and tear, and mental exhaustion.

Stress is experienced when either of these mechanisms are not functioning properly or when we find it difficult to switch appropriately from one to another. This forms the basis of individual approaches to stress management. The ability of a person to prevent or reduce stress is determined by that person’s appraisal of:-

- i. the threat within a situation (primary appraisal), and
- ii. the appraisal of his/her coping skills to deal with that threat (secondary appraisal).

These appraisals have been shaped by past experiences of confronting stress and, in turn, influence future behaviour and appraisals. Thus, the process of appraisal, behaviour, and stress is continuous, and managing stress can result from changing the way the situation is appraised (cognitive techniques) or responded to (behavioural or cognitive techniques).

2.3. Factors of Stress

Studies have identified many stressors, including role ambiguity, role conflict, heavy work-load, pressure, and physical discomforts. Work stress has been shown to result in job dissatisfaction, burnout (physical, emotional, and mental exhaustion), staff turnover, occupational illness and injuries, reduced mental health, depression, and even suicide (Dianz and Cabrera, 1997).

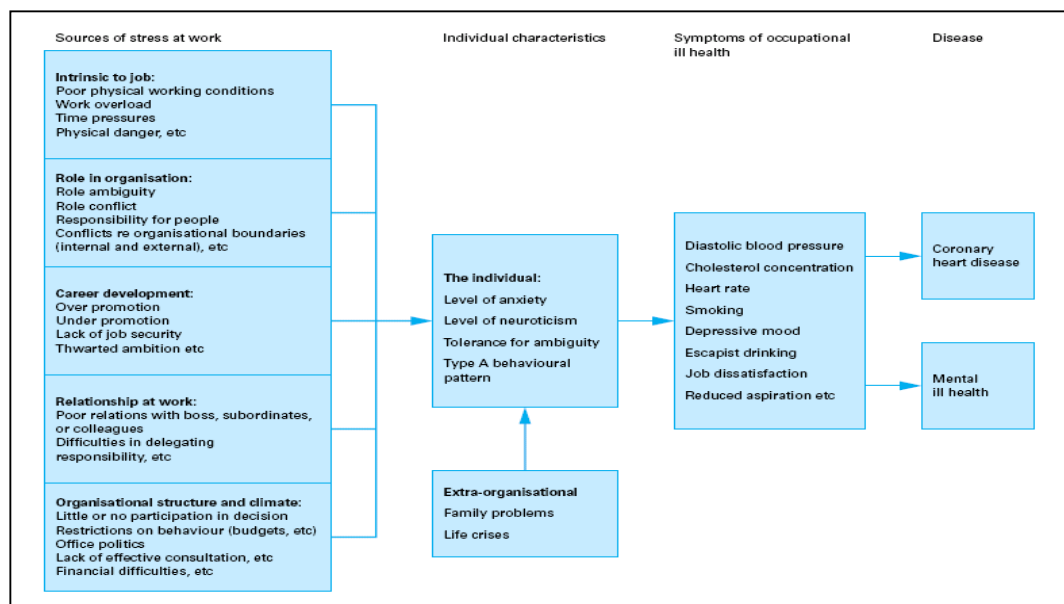


Figure 2.1: Model Stress At Work

Source: Michie, S. 2002. *Work causes and management of stress at work*. *Occup. Environ. Med.* 59:67-72.

Michie (2002) associated workplace factors with stress and health risks that can be categorised as those to do with the content of work and those to do with the social and organisational context of work (Figure 2.1). Those that are intrinsic to the job include long hours, work overload, time pressure, difficult or complex tasks, lack of breaks, lack of variety, and poor physical work conditions (for example, space, temperature, light).

If organizations are to successfully reduce staff stress and improve staff morale, it is important to understand which factors influence staff stress and morale. A number of studies have attempted to determine the characteristics of service users, staff members and organizations which are associated with high staff stress and poor staff morale in community-based services for people with intellectual disability.

The list of factors derived by Hatton et al. (1999) can be grouped into several domains according to current organizational theories.

1. Within-staff factors. These include younger staff age, personal health, staff beliefs about and emotional reactions to user challenging behaviour, and the coping strategies used by staff to deal with workplace problems, particularly emotion-focused coping strategies such as wishful thinking.
2. Characteristics of service users. These focus on challenging behaviours shown by service users.

3. Factors intrinsic to the job. Factors here include work overload, a lack of job variety, low income and the emotional impact of working with people with intellectual disability.
4. Social support. These include feedback on job performance, and both practical and emotional support from colleagues, supervisors and managers.
5. Career development. Factors in this area include lack of job, lack of promotion prospects, and lack of further training and skill development.
6. Role in the organization. Factors in this area include role ambiguity and role conflict.
7. Organizational structure and climate. Factors in this area include hierarchical organizational structures, lack of participation in organizational decision-making, commitment to the organization, particularly in terms of alienation from the organization, and lack of person – organization ‘fit’.
8. Work home interface. Some work has suggested a link between high staff stress, and conflicting demands between work and home.

Dana (2001) addressed conflict in his research, one can very easily apply the term ‘stress’ every place he mentions the term, ‘conflict’. Conflict in the workplace creates stress in the workplace and stress in the workplace creates conflict. Eight cost factors to look at when dealing with stress/conflict:

1. Use of health care for illnesses and injuries that are partially psychogenic. The calculation is based on the percentage of the psychogenic components of medical problems that occur when specified stress/ conflict takes place.
2. Lowered job motivation. The calculation is based on the loss of productivity due to the stress/ conflict event.
3. Lost work time. The calculation is based on sick days, personal leave and lost time due to disciplinary actions taken during stress/conflict.
4. Wasted time. This occurs primarily through the loss of an administrator's time spent resolving stress/ conflict.
5. Reduced decision quality. Administrators and work teams should ask, 'What opportunities were lost by poor decisions that were affected by stress/conflict, and what might have been gained if a better decision had been made?'
6. Loss of skilled employees. Chronic unresolved stress/conflict can be a decisive factor in many of the voluntary employee departures.
7. Restructuring. The redesign of workflow may be altered in an attempt by administration to reduce the amount of interaction among employees.
8. Sabotage, theft and damage. The prevalence of employee stress/conflict and the amount of damage and theft of inventory and equipment are often related.

2.4. Health and Safety Aspects of Occupational Stress

Improving worker productivity, occupational health and safety are major concerns of industry especially in developing countries including Malaysia. Some of the common features of these small and medium industries are improper workplace design, ill structured jobs, mismatched between worker abilities and job demands, adverse environment, poor human machine system design and inappropriate management programs. This leads to workplace hazards, poor worker health, mechanical equipment injuries, disabilities and in turn this reduces worker productivity and product/ work quality and increases cost.

The deleterious effects of occupational stress on worker health and well-being have been described in numerous reports (e.g. report on occupational stress among aircraft maintenance personnel in Hongkong) for a wide range of work groups. Work factors such as work overload (and underload), deadline pressures, role stressors, underutilization of abilities, and physical discomfort have been identified and associated with increased stress symptoms. Work routines such as shift work and machine-pacing have also emerged as risk factors. Health complaints associated with such stressors have included acute reactions (e.g., headaches, stomach distress, muscle/joint complaints, and negative mood states) as well as more chronic health outcomes such as coronary heart disease and mental ill health.

Kivimaki et al. (2002) found that employees reporting high job strain and high effort-reward imbalance had a twofold higher risk of death from cardiovascular disease than their colleagues scoring low in these dimensions. Stable levels of work

stress are more likely among employees who do not change their job or workplace. In line with this, the adverse effects of high job stress will be greatest for employees who remained with the same employer and in the same occupation during the five years after work stress assessment. People with a very high workload, as indicated by working continuously over 11 hours a day, may be at high risk of cardiovascular disease.

Accidents and their antecedent conditions have traditionally been examined using two different approaches:

- (1) engineering-based and
- (2) employee-based.

The engineering approach emphasizes unsafe conditions in the work environment as major causes of accidents and focuses on designing safety hazards out of the job. The employee-based approach views unsafe acts as the primary cause of accidents and seeks to improve the safety performance of workers as an accident prevention strategy (Murphy et al., 1986).

Accidents are best understood as resulting from the interplay of work environment, training, and employee factors. Hazardous work conditions, organizational factors (e.g., poor management), and inadequate training each contribute to accident risk.

The model explained by Murphy et al. (1986) in Figure 2.2 shows where stressors, as opposed to job stressors, has been used in the model to reflect the

contribution of both work and non-work factors to overall stress levels. The first stage of the model depicts the effects of stressors on short-term, acute reactions. Such reactions include psychological, physiological, and behavioral problems. These reactions, in turn, disrupt the worker and lead to observable decreases in intellectual and performance capacities. For example, anxiety can lead to lower performance accuracy, fatigue to slower reaction time and inattention, and alcohol use to impaired judgment and reasoning.

A key aspect of the model is the specification of stress reactions as the mechanism of action, which mediates the decrements in worker capabilities. Decrease in worker intellectual and performance capabilities functions will increase the probability of unsafe behavior.

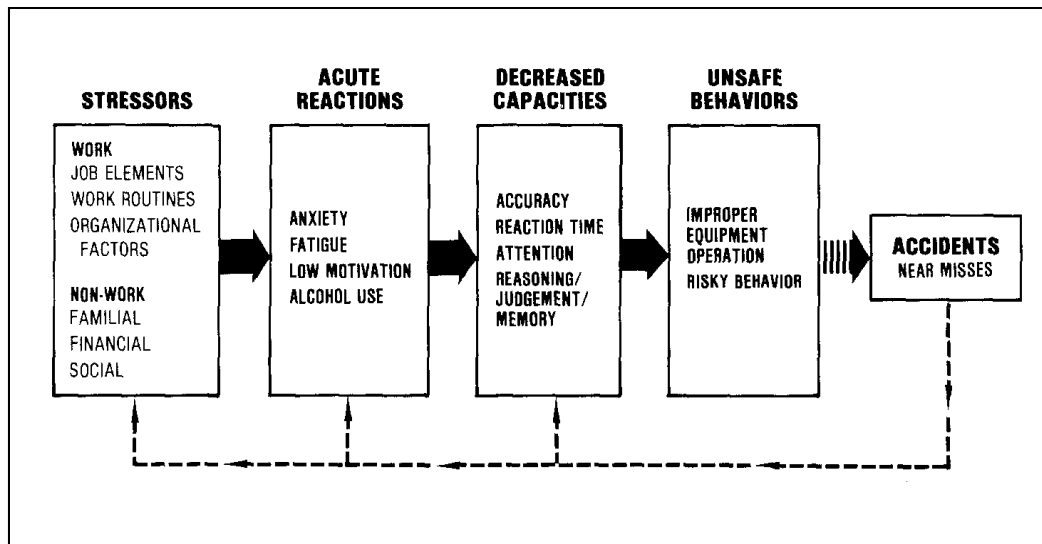


Figure 2.2: Model of Stressor and Accident

Source: Murphy et al. 1986. *Accident reduction through stress management*. Journal of Business and Psychology; volume 1: No 1: pp 5-14.

Therefore, accidents are depicted as a probability in the model. Fortunately, most unsafe behaviors do not result in accidents. The dotted lines exiting the accidents box in the model represent a positive feedback system whereby the occurrence of an accident itself functions as a source of stress and reactivates the cycle. The model allows for the existence of accident repeaters (or accident proneness), but the basis is high levels of stress, not personality attributes.

2.5. Potential Cost for Occupational Stress

In developed countries, the contribution of stress to musculoskeletal disability as well as its role in organizational losses (productivity and lost work days) has catapulted this issue into the press. Reich and Frumkin (1988) have concluded that Japanese workers now face a range of occupational hazards much like those of their counterparts in Europe and North America. Evidence suggests that Japan has accident rates similar to those of other industrialized nations, and that the risk may be especially high for workers in small Japanese companies. Additionally, there is evidence of a significant occupational disease problem, including asbestosis, silicosis, musculoskeletal disorders, and occupational cancer.

The Japanese occupational health system can be cited for its thorough legal framework, its broad-based administrative arrangements, its detailed data collection, and its large complement of trained professionals. In addition, the safe and healthy work place is increasingly perceived by workers as a right to which they are entitled. However, political and economic interests continue to compete with scientific and public health perspectives in standard setting, and enforcement may be less than

rigorous. Although labour federations and some unions have brought about significant changes, most unions remain limited in power and many workers are non-unionized and without influence.

According to National Labour Organization work-related accidents or diseases are very costly and can have many serious direct and indirect effects on the lives of workers and their families. For workers, some of the direct costs of an injury or illness are:

- the pain and suffering of the injury or illness;
- the loss of income;
- the possible loss of a job; and
- healthcare costs.

It has been estimated that the indirect costs of an accident or illness can be four to ten times greater than the direct costs, or even more. An occupational illness or accident can have so many indirect costs to workers that it is often difficult to measure them. One of the most obvious indirect costs is the human suffering caused to workers' families, which cannot be compensated with money.

The costs to employers of occupational accidents or illnesses are also estimated to be enormous. For a small business, the cost of even one accident can be a financial disaster. For employers, some of the direct costs are:

- payment for work not performed;
- medical and compensation payments;
- repair or replacement of damaged machinery and equipment;

- reduction or a temporary halt in production;
- increased training expenses and administration costs;
- possible reduction in the quality of work;
- negative effect on morale in other workers.

Some of the indirect costs for employers are:

- the injured/ill worker has to be replaced;
- a new worker has to be trained and given time to adjust;
- it takes time before the new worker is producing at the rate of the original worker;
- time must be devoted to obligatory investigations, to the writing of reports and filling out of forms;
- accidents often arouse the concern of fellow workers and influence labour relations in a negative way;
- poor health and safety conditions in the workplace can also result in poor public relations.

Overall, the costs of most work-related accidents or illnesses to workers and their families and to employers are very high. On a national scale, the estimated costs of occupational accidents and illnesses can be as high as three to four per cent of a country's gross national product. In reality, no one really knows the total costs of work-related accidents or diseases because there are a multitude of indirect costs which are difficult to measure besides the more obvious direct costs.

2.6. Coping Strategies

Coping is defined as ‘the person’s cognitive and behavioural efforts to manage the internal and external demands of the person environment transaction that is appraised as taxing or exceeding the person’s resources’ by Wong (2001). It is a multi dimensional concept, with at least two broad categories: coping styles and coping strategies. Coping styles refer to stable dispositions and patterns of responses that people use to deal with difficulties. Arising from this approach are studies conducted to examine the various typologies of coping styles found in individuals.

According to Shimazu et al. (2006), the increasing awareness of the adverse impact of poor psychosocial work environments on employee health has fostered a growing interest in stress management interventions that were designed to reduce occupational stress based on their focus, content, method, and duration. Regarding to their focus, intervention can be categorized as:

1. To increase individual psychological resources and responses such as coping (individual-focused interventions) and usually refereed as stress management interventions.
2. To improve stressful work environments (organization- focused interventions) which refers as organizational development and job redesign.

Stress management intervention is defined as techniques and programs that are designed to help employees modify their appraisal of stressful situations or to deal more effectively with the symptoms of stress. There are various kinds of intervention techniques and programs such as, cognitive-behavioral training, personalized

feedback based on systematic assessment, meditation, relaxation training, and physical fitness training. Given this fact, few things can be done to assist employee in coping with stressful situations in the workplace such as:

1. During any stressful events, a positive mindset should be constructed in handling the stressful situation rather than passively retreating and avoiding the situation.
2. Confront and explain any stressful perception between involved persons so that it will show clearer picture on the specific situation.
3. Change the way of thinking from stressful to favourable event and imagine how it will turn up if the event has been handled in different way. These three strategies are very closely related and very similar in approach in order to build one's sense of commitment.
4. Improve the environment by lightening and brightening up the surrounding with flowers and pictures at the workspace. Search for philosophical and/or spiritual approach in dealing with stressful experience.
5. Seek more information about stressful situation. This can be done by reading relevant materials or consult with a knowledgeable person.
6. Divert the attention in order to reduce stress by expressing feelings to an uninvolved person or taking part in physical exercise such as walking, running, swimming or biking (Lambert et al., 2003).

Worksite interventions take place within an organizational context where there are organizational factors, which may moderate the intervention effect. Studies on coping in the workplace claim that active coping strategies (i.e., problem-solving

behavior) have a favorable effect on employee health and safety, but only among those with high job control. A recent review of worksite interventions also claimed that cognitive-behavioral interventions appear particularly effective in jobs with high job control because high control allows employees to exercise the coping skills they learned through an intervention programs (Shimazu et al., 2006). Kopex and Sayre (2004) found that work-related stress increases the likelihood of suffering from non-specific chronic pain or discomfort. Hence, reduction of stress may have a significant impact on the frequency of pain and other complaints among workers.

Companies should help their employees learn to deal with stress. Veninga (1998) noted that companies can take at least five steps to curb excessive pressure on the job.

1. Leaders must carefully examine whether restructuring is in the best interest of the business and its employees. Downsizing often leaves the remaining employees with too many tasks for one individual to accomplish.
2. Businesses should reexamine employee workloads to determine if the organization has reasonable expectations for job positions in the firm.
3. Companies must allow employees to be creative. Many employees feel that their talents are not being used to their full potential.
4. Organizations must encourage employees to clarify their goals. Research indicates that employees who could not verbalize their goals are more affected by stress in the workplace.

5. Finally, companies must encourage employees to keep learning. Learning stimulates the mind and keeps employees on a path for future contributions to the organization (Kamery, 2004).

2.7. Stress and Cultures

Different cultures may adopt different sets of coping strategies to handle difficulties in life. Several studies have revealed that besides problem-solving strategies, Chinese people frequently adopt ‘acceptance strategies’ to handle situations that they feel to be unalterable. In fact, acceptance can be defined as an attitude held by an individual to acknowledge the fatalistic nature of a certain situation as something beyond one’s control, and is said to be firmly rooted in the Chinese Taoist philosophy.

As such, acceptance strategies are passive coping strategies used by an individual, not for tackling a problem directly, but for helping the person to regulate his/her emotions by acknowledging the situation as something unalterable. Besides ‘acceptance’, avoidance and compromise strategies are also passive coping strategies that are often used by Chinese people to handle interpersonal conflicts. Indeed, it is generally believed that while non Chinese people see active and passive coping strategies as mutually exclusive, Chinese people often simultaneously employ the two broad sets of strategies to handle life difficulties. However, in comparison to other sample populations, Chinese subjects tend to use alcohol less in order to handle life stresses (Wong, 2001).

According to Javed (2007), stress is considered as a test of endurance and patience in Islamic perspective. It is accepted as God's will, calling for patience and then appealing to God to relieve stress. This is a very interesting concept as here there is no hopelessness, but, there is a hope and one approaches God to get guidance and helps to overcome the stress.

Looking from the religious perspectives, stress also elicits the support of others, limits personal responsibility towards events and is based on forgiveness and generosity. Guilt an important psychopathology is also explained in a more favourable prognostic way in the Islamic religion. The concept is that no one is expected to do more than what could be done by an individual and one is not responsible for the sufferings or the wrongs of others. Attributing all wrongs beyond ones own control and asking for forgiveness by God's mercy helps to alleviate the guilt through the religious concepts.

Regarding the anxiety and anger management, teachings of Islam require you to control yourself at the times of being angry and irritable by thinking of God and you are exposing yourself to feared situations with a strong intent to get over it. Islam very clearly stresses the importance of conflict resolution in all aspects of life and it has been mentioned in the Quran in different verses that Islam promotes and supports interpersonal conflict resolution. This is again an important approach while dealing with the day-to-day difficulties and conflicts (Javed, 2007).

Based on studies conducted earlier, it can be concluded that stress at workplace is an emerging epidemic and have become serious concerns to the occupational doctors, employers as well as the public. Huge impact can be seen on workforce performance of the organization and cost incurred to the nations.