Stuti Gupta
Research Scholar, Home Science
Banasthali Vidyapith,
Banasthali, Rajasthan, India

Occupational stress in IT professionals and coping strategies

Stuti Gupta

Abstract
In the modern era of digitalization, Information technology has become the integral part of each and everyone's life. With the necessity of e-governance and e-banking, a boom in IT industry has been observed in last two decades. Campaigns like Digital-India and Start-Up India are acting as a catalyst in the growth of IT industry especially in India. As a result, IT organizations of public as well as private sectors are growing at an exponential rate and a tough competition for success and survival is being observed in all the interconnected business sectors i.e. Information & communication technology, banking, software & hardware industries etc., not only in India but across the world.

The prime objective of any industry or organization is to gain maximum profit from the available resources. Employees (Human Resources) are the most valuable asset for any organization and the success of the organization depends mainly on the skill, performance and productivity of their employees. Therefore in IT industries, productivity improvement programs are mostly focused at the worker level. For millions of IT professionals in the new "electronic world," one of the most serious health hazards currently faced is stress. Studies on workplace stress has shown that IT professional have higher levels of stress than any other group of workers, because of the nature of work involved. The high stress aspects of IT jobs have been linked to various musculoskeletal problems, heart and other diseases as well. Although office work has always been stressful, several scientific studies and surveys have helped focus attention on the issue of occupational stress in IT professionals. IT revolution has given the modern workplace an array of new options and improved efficiency. But far from having a calming effect on overworked employees, information technology has itself become a source of increasing physical and psychological stress. The National Institute for Occupational Safety and Health (NIOSH) found that IT professionals experienced greater job stress than any other occupational group that NIOSH had ever studied.

Keywords: Occupational stress, professionals, coping strategies

Introduction
What is occupational Stress?
In general, the combination of high demands in a job and a low amount of control over the situation can lead to stress. Occupational stress in organizations (also termed as work stress or job stress) "is a condition wherein job-related factors interact with the worker to change, either disrupt or enhance, their psychological or physiological conditions such that the individual's mind and/or body are forced to deviate from normal functioning" [1]. Occupational stress results because of conflict between job demands on the employee and the amount of control an employee has over meeting the requirements. As a result the IT professionals find themselves trapped in a in a mental and physical condition that calls in a detrimental effect on the individual's productivity, effectiveness, personal health and quality of the work. The famous scientist Hans Selye, who described the concept of stress in his book "*The Stress of Life*" as, 'the role of all wear and tear caused by life' [2]. It is important to note that not all stress is negative or bad. For instance, in his early work on the topic of stress, Selye (1976) conceptualized two categories, namely good or desirable stress (eustress) and bad or undesirable stress (distress) [2].

Occupation stress is the anomalous response commonly observed in employees, when presented with work demands and pressures that are not matched to their knowledge and abilities and which challenge their ability to cope.

Correspondence
Stuti Gupta
Research Scholar, Home Science
Banasthali Vidyapith,
Banasthali, Rajasthan, India

Stress is associated with constraints and demands. Constraints prevent the person from doing things what he or she desires. Demand refers to the loss of something desired. Stress is highest for the individuals who perceive they are uncertain as to whether they will win or lose and lowest for those who think that winning or losing is a certainty. If winning or losing is an unimportant outcome, there is no stress. For example, if retaining the job or earning a promotion does not hold any importance for the person, the person has no reason to feel stress over having to undergo a performance review. In short, we can outline workplace stress as a dynamic condition in which a person deals with a situation or constraint or demand related to their requirements for which the outcome perceives to be both important and uncertain.

Sources/causes of Occupational Stress
The world has become a global village and new set of working conditions have emerged in the IT industries, with employers fiercely competing for technological advantages by widely adopting and frequently upgrading information & communication technologies. It has put the IT professionals under enormous demands and the constant need to learn new skills, resulting in occupational stress. Many of the sources of stress at work have a different character--they are more subtle, more pervasive, and come from a variety of factors. Whether it's increased workload, eyestrain from staring into computers, unpredictable disciplinary action by a supervisor, or never being complimented about the quality of work, these all cause the "fight or flight" response to be triggered. Occupational stress may have many origins or come from one single event and can have impact on both employees and employers alike.

Lack of resources
Lack of resources in any organization is the common cause of workload on employees which eventually results in the occupational stress on workers. Not only physical resources but human resources are also need to be present in adequate and with proper skill set to control occupational stress rising from lack of resources.

Poor Management
Poor Management is one of the prime causes of occupational stress in IT professionals. It includes lack of participation by workers in decision making, poor communication in the organization, conflicting and uncertain job expectations from worker and lack of worker friendly policies. Workplace conflict avoidance and resolution need to be paid attention and subsequently, its impact in the organization need to be assessed by the management regularly., Allocating the work intelligently based on the capabilities of the worker and shift scheduling as per the convenience of all the worker need to be practiced for controlling occupational stress. Poor social environment and lack of support or help from co-workers and supervisors is another reason of occupational stress among workers.
There is a big gap in IT firms between senior and junior in organizations. Middle level management worker does not share a good organizational relation with down line workers. Miscommunication between these level due to position concern always contribute toward occupational stress

Boredom
With the introduction of new technologies, IT jobs have become more fragmented and job tasks have been narrowed, leaving an individual disconnected from the final product outcome and the workers constantly find themselves being surrounded by these technologies. Zorran, Miodrag and Zorica (2012) suggested that occupational stress is the most common type of stress people are exposed to in modern society. The nature of the working process itself is transformed almost on a daily basis, which affects the physiological condition of employees of every sector [5].

Deskilling
Work is a central part of human life. It is the expression of the basic need to accomplish, to create, to feel satisfaction, and to feel meaningful. Rewarding work is an important and positive part of any worker's life. However, when work denies people an opportunity to utilize their creativity, intelligence, and decision-making ability, it causes stress. This process of "deskilling" has created increased levels of boredom, making work less challenging and less satisfying for many workers. The traditional response of management has been to "blame the victim", defining stress as an individual or "personal" problem that workers bring from home to work. In contrast to this approach that blames people for their inability to fit into an inhumane work environment, it is important to analyze the structure of job requirements and social relationships at work as the primary sources of stress

Workload
The nature of task allocated to an employer may become the cause of workplace stress. Heavy workload, infrequent rest breaks, long working hours and shift work makes the routine IT work hectic and have little inherent meaning which do not utilize employee's skills.

Poor environmental conditions
Poor environmental conditions refer to unpleasant work environment because of crowding, noise, air pollution, or ergonomic problems. These conditions are observed to be the cause of physical stress among professional in IT industry.

Posture
The physiological stress is caused by the sedentary nature of work and static and sometimes awkward sitting posture of the IT professionals. IT professionals commonly report fatigue, eye and vision problems like eye strain and irritation because of for long working hours.

Interpersonal Relationships
Due to unhealthy interpersonal relationship there is lack of flexibility in performing daily tasks. Many workers experience little control over the work they do. Lack of meaningful participation opportunities and lack of appreciation as a result of unhealthy interpersonal relationship is responsible for occupational stress in some IT professionals.
Beside this, there are other personal reasons of a worker such as career Concerns and job insecurity, lack of opportunity for growth, advancement, or promotion or any rapid changes for which workers are unprepared is responsible for creating occupational stress in IT professionals.

Parameters to assess Occupational Stress in IT professionals
IT professionals often work in environment which is changing very fast, have very little control over their environment, pace of working, or the kind of circumstances that they have to deal with. The various parameters to compute occupational stress in organizations can be categorized as physical, psychological and environmental. All these parameters need to be considered

for assessing occupational stress in IT professionals.

Physical Parameter
A person's capacity is influenced by many factors in the process of carrying out any physical work such as body weight, age, sex, stamina, working hours per day etc. Pain, posture and physiological discomfort in workers are the most common issues that need to be assessed on regular intervals. Symptoms of pain and discomfort arising due to the workplace conditions and static nature of VDT work is responsible for physical stress normally observed in IT professionals.

Psychological Parameter
The mental stress originating from the working conditions in the IT professionals is related to psychological dimension and assessed through the factors such as: Boredom, Emotional intelligence, Conflict, Anxiety and Workplace atmosphere.

Environmental Parameter
The environmental condition of the workplace is related to the indoor climate and work area setup such as workstation Design and workplace layout, Furniture Design which includes chair, desk, backrest, armrest, footrest, castors, seat depth, seat width, seat height, compatibility of the system components (mouse, keyboard, monitor, document holder) and Indoor climate such as glare, light, humidity, hot/cool environment and ventilation etc.

The Impact of Occupational Stress
Occupational stress is one of the major health hazards of the modern workplace. It accounts for much of the physical illness, substance abuse, and family problems experienced by millions of IT professionals. Also, occupational stress and stressful working conditions have been linked to low productivity, absenteeism, and increased rates of accidents on and off the job. People get sick from stress at work and the cost associated with job stress is hence significant to the employer. Stress can have various effects on the individual as well as on the organization. Eventually not only the individual suffers but the organizations also get affected by absenteeism, work related accidents, turnover and impaired decision making. According to Cartwright et al [4] absenteeism, illness, alcoholism, "petty internal politics", bad or snap decisions, indifference and apathy, lack of motivation or creativity are all by-products of an over stressed workplace.

The perceptions of intensified workload, monotonous work, limited job control, low job clarity and low social support result in various work related musculoskeletal disorders also known as Cumulative Trauma Disorders (CTDs).

The inverted U relationship between stress and productivity is illustrated in the figure below via Yerkes-Dodson stress curve. Management may not be concerned when employee experience low to moderate level of stress. Such levels may lead to higher employee performance. While stress is typically discussed in a negative context, it also has positive value. But high levels of stress or even low levels sustained over a long period of time, can lead to reduced employee performance and thus require action by management. From the individuals standpoint even low levels of stress are likely to be perceived as undesirable. Management need to ensure that the stress on employees is adequate for optimal performance and is a very likely to be seen as 'excessive pressure' by the employees. Stress has an emotional impact on all type of organizations, regardless of whether it is a IT industry or any service organization. Employees who start to feel the "pressure to perform" can get caught in a downward spiral of increasing effort to meet rising expectations with no increase in job satisfaction. The relentless requirement to work at optimum performance takes its toll in job dissatisfaction, employee turnover, reduced efficiency, illness and even death.
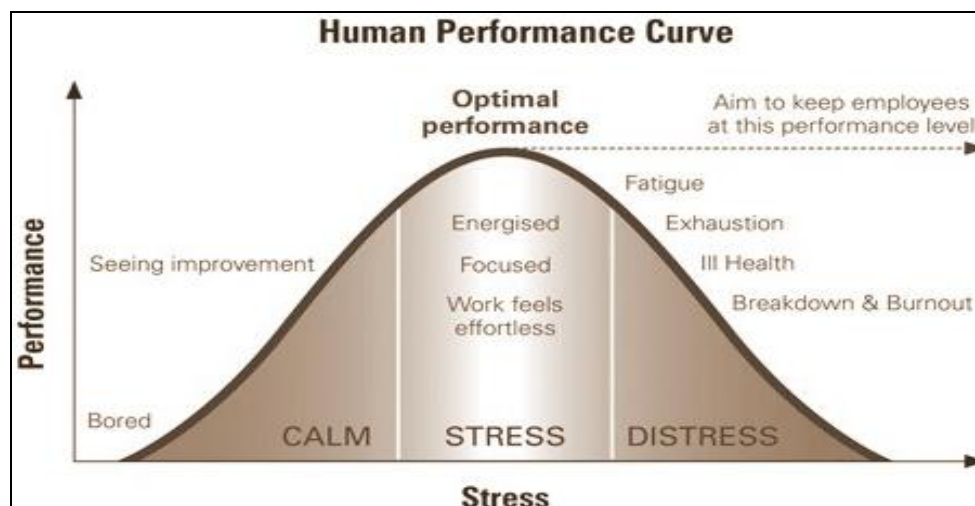

Fig 1: Yerkes-Dodson stress curve

Occupational or job stress may be understood as a "mechanism whereby the human body attempts to adapt to the environment. It is important to note that not all stress is negative or bad. Stress has an adaptive value. It motivates the individual to attend to the task and get rid of the tension or demand the unattended task produced. Work stress results in physical and psychological health complaints. Monitored workers reported more boredom, high tension, extreme anxiety and depression, anger, and severe fatigue than non-monitored workers. Also, monitored workers reported more musculoskeletal problems (i.e., wrist, arm, shoulder, neck and back problems) and headaches than non-monitored workers. These technologies are correlated with market share increases, productivity gains, product and delivery quality improvements, increased flexibility, production costs reduction

Coping with occupational stress
An employee's ability to mobilize and successfully or unsuccessfully deal with stress factors is termed coping, adjusting to stress or stress management. Experience of occupational stress effects the execution of the work in positive or in negative way. It motivates the individual to

attend to the task and get rid of the stress associated with it. When the cause of the stress can be identified, is of short duration, and can be responded to by a specific set of positive actions that eliminate the cause, this is a healthy stress reaction. However, when the source of the stress is not identifiable, becomes excessive, repeated, prolonged, or continuous, it becomes "distress" and creates unhealthy physiological and psychological reactions.

Researches indicate that productivity increases by intensifying the work effort of the employees by flexible work timings. The idea of "Flextime" has gain popularity among employees in many organizations. It not only allows the employer to deal with the problems caused by transit times during peak hour but also allows the employee to staff with family commitments, granting workers greater flexibility in starting and quitting times while maintaining a core time they were present in the office. Organizations have observed positive outcomes by creating flexible work arrangements with a minor addition to the cost.

Yoga practice has a highly positive impact in the management of occupational stress related problems. The strong need is that the various aspects of yoga may suitably be embraced as a part of regular training particularly among the IT professionals. Individuals need to incorporate time management in daily routine by making daily list of activities to be accomplished, prioritizing activities by importance and scheduling activities according to the priority set. Along with this emphasis need to be given on adequate diet, exercises, career planning, psychological health, relaxation, meditation and prayer. Organization need to provide counseling or recreation facilities or may improve the job design by matching the person with the job. A proper fit between Individual needs and the demands of the task will eventually benefit both the employee and the organization.

It has also been noticed that when regular breaks are implemented in organizations, work efficiency improves, paying for the time lost during the breaks. Studies suggest that, as concerned with the reduction of hours of work with respect to the output performance, if workers are given sufficient leave hours, there may be chances of increment of performances on intend basis.

Employee recognition is also very important to increase the morale and positive workplace attitudes of the employees. Employee recognition is an incentive employers utilize to offer feedback and encouragement to employees. Employee recognition rewards include verbal praise, award ceremonies and public announcements for the performance. Many employers offer rewards and incentives through employee assistance programs. These programs help workers maintain a balance between work and home life by supporting workers' mental and physical well-being

Conclusion
The effect of occupational stress on health and performance is very serious concern not only for IT professionals engaged with and suffering from but also from industry's aspect as this may create a negative view about the organization or even the whole industry and occupation. This may result as scarcity of personnel in this industry in future. If there is a continuous increase in the number of such cases of occupational stress, this may cause a serious threat for the IT industry.

In recent times, the high attrition rate in this sector, coupled with high absenteeism indicates that these professionals experience a lot of negative psychological consequence. In short, workplace stress can be very costly to both the employer and employee and can lead to job dissatisfaction among workers, which often results in absenteeism and reduced productivity.

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