SOPAAN :ISSN-2349-9893 | Oct'14-March'15

Physical and Psychological forms of Techno Stress among employees working in organizations

Dr. Deepak Sharma
Associate Professor,
Gyan Jyoti group of Institutions
Mohali

Pooja Sareen
Faculty
Dept. of commerce
PGGC 46, Chandigarh&
Research Scholar, PTU

Abstract

People experience technostress when they cannot adapt to or cope with information technologies in a healthy manner. They feel compulsive about being connected and sharing constant updates, feel forced to respond to work-related information in real-time, and engage in almost habitual multi-tasking. Some of the earliest technostress studies show that technostress is an undesirable phenomenon spawned by use of computing and communication devices such as PC's, tablets and smartphones. So, this paper attempt to study the Physical and Psychological forms of Techno stress and outline the various ways of Coping Techno stress

Keywords: Techno Stress. Physical Techno Stress. Interpersonal Conflict. Work Overload. Role Overload. Role Ambiquity. Psychological Capital. Phychologicals Technostress. Cognitive Processing

STRESS:

The term stress has multiple meanings. As Richard Lazarus stated in his 1966 book Psychological Stress and the Coping Process: "It seems wise to use 'stress' as a generic term for the whole area of problems that includes the stimuli producing stress reactions, the reactions themselves, and the various intervening processes. Thus, we can speak of the field of stress, and mean the physiological, sociological, and psychological phenomena and their respective concepts. It could then include research and theory on group or individual disasters, physiological assault on tissues and the effects of this assault, disturbances or facilitation of adaptive functioning produced by conditions of deprivation, thwarting or the prospect of this, and the field of negatively toned emotions such as fear, anger, depression, despair, hopelessness, and guilt. Stress is not any one of these things; nor is it stimulus, response, or intervening variable, but rather a collective term for an area of study." (Lazarus, 1966, p.27).

TECHNOSTRESS

Technostress is the negative psychological link between people and the introduction of new technologies. Whereas ergonomics is the study of how humans react to and physically fit with machines in their environment, technostress is a result of altered habits of work and collaboration that are being brought about due to the use of modern information technologies at office and home situations. People experience technostress when they cannot adapt to or cope with information technologies in a healthy manner. They feel compulsive about being connected and sharing constant updates, feel forced to respond to work-related information in real-time, and

engage in almost habitual multi-tasking. They feel compelled to work faster because information flows faster, and have little time to spend on sustained thinking and creative analysis.

Craig Brod, a leader in the field of technostress research, states that technostress is "...a modern disease of adaptation caused by an inability to cope with the new computer technologies in a healthy manner." Some of the earliest technostress scholarly studies in the field of Management Information Systems show that technostress is an undesirable phenomenon spawned by use of computing and communication devices such as PC's, tablets and smartphones. It is dependent on gender, age and computer literacy. Women experience lower technostress than men, older people experience less technostress at work than younger people and those with greater computers literacy experience lower technostress

Objective of the Study

1. To study the Physical forms of Techno stress

2. . To study the Psychological forms of Techno stress

3. To outline the various ways of Coping Techno stress

METHODOLOGY

This study used a descriptive survey design. The purpose of descriptive surveys, according to Ezeani (1998), is to collect detailed and factual information that describes an existing phenomenon. A thorough review of literature was conducted before selecting the topic of the study. This study is focused on understanding the physical and psychological factors affecting technostress among a group of professional managers in India and devise coping strategies for the same. In other words, this study examines the reasons behind what employees perceive about technostressors in Indian organizations and how can they eliminate this stress.

PHYSICAL FORMS OF TECHNOSTRESS

Heavy use of computer technology, in particular, may result in eyestrain, headaches and backaches as well as:

- Repetitive Strain Injuries

Carpal Tunnel Syndrome, whose symptoms include pain, tingling and numbness in the hand, wrist and arm, can be caused by continuous rapid use of the fingers, and is common among those whose use keyboards frequently.

- Overexposure to Visual Display Units (VDUs)

Headaches and muscular dysfunctions may result from overexposure computer terminals, while electromagnetic radiation produced by VDUs has been linked to miscarriages and to serious medical conditions including cancer (Coghill 1990: 123-40). The heat and static electricity

produced by terminals may also lead to fatigue and general debility (Graham and Bennett 1974:89). Older VDUs are likely to radiate more than newer ones.

PSYCHOLOGICAL FORMS OF TECHNOSTRESS

Psychological forms of technostress – which may have physical consequences – are rather more complex in nature. Technostress may be environmental in origin: poor ergonomics at computer workstations, for example, may leave staff feeling drain. Employees may also struggle to cope with the skills demanded by new technology, as in the case of many rural public libraries which are only now becoming automated; on the other hand, many staff over identify with technology. Some of the Psychological forms of Techno Stress is as follows:-

INTERPERSONAL CONFLICT

Stress research is shifting from its traditional focus on role stress and workload to stress that originates from interpersonal interactions at work (Diefendorff and Ellington 2008; Schieman and Reid 2008; Young and Corsun 2010). Because humans are social beings, their attitudes and behaviors are significantly influenced by the quality of interpersonal relationships (Frone 2000). Interpersonal problems are a universal human phenomenon that often ranks as a *primary source* of unhappiness in people's lives (Frone 2000). A construct that measures the quality of interpersonal relationships at work is interpersonal conflict. In the workplace, interpersonal conflict can range from minor disagreements with coworkers to heated arguments and physical violence. Interpersonal conflict involves both *overt* (e.g., rudeness) and *covert* (e.g., spreading rumors) behaviors that lead to psychological strain. Despite the potential importance of this construct, research investigating the effect of interpersonal conflict in sales settings is limited. Interpersonal conflict has been associated with employees' divergence of interests (Bluen and Barling 1988) and often occurs in selling, where salespeople compete for resources and customers (Narayanan, Menon, and Spector 1999). A high degree of interpersonal conflict [International Journal of Research in management ISSN 2249-5908 Available online on http://www.rspublication.com/ijrm/ijrm_index.htm Issue 2, Vol. 5 (september-2012) Page 52] occurs when employees have different and conflicting views about job issues (De Dreu and Weingart, 2003). Because role conflict measures employees' beliefs that job demands are incompatible (Chen and Spector, 1992), a strong association between interpersonal conflict and role conflict should be expected. In brief, Interpersonal conflict represents the extent to which an employee has negatively charged social interactions with coworkers (Spector 1987). Interpersonal conflict is one of the most important stressors at work due to its pervasive effect on employee emotions and team work (Liu, Spector, and Shi 2007). Interpersonal conflict is of particular concern in boundary spanning positions where collaborative work is expected (Mulki, Jaramillo and Locander 2008).

WORK OVERLOAD

Work overload is the perception that assigned work exceeds an individual's capability or skill level (Cooper et al. 2001). Role overload happens when the requirements from an individual's role exceed his or her capacity in terms of the level of difficulty or the amount of work (Kahn et. al. 1964). Quantitative role overload describes situations where there is simply too much to do. Qualitative role overload relates to instances where the job that is required to be done is too

difficult for the individual to accomplish (Katz and Kahn 1978). Work overload can also happen when a person has to fulfill a number of different roles, more than what he or she can effectively manage (Kahn et. al. 1964). In such a situation, the individual is exposed to too many requirements from different roles and simply becomes overwhelmed.

WORK-FAMILY CONFLICT

Work-family conflict is generally defined as a form of inter-role conflict in which the role pressures from the work and family domains are mutually incompatible or incongruous in some respect, whereby participation in one role is made more difficult by virtue of participation in the other (Greenhaus and Beutell, 1985). Work-family conflict has been neglected in previous stress research because work and family are often viewed as separate life domains. However, recent studies suggest that the interface of work and family produces stresses and strains for employees (Cooper et al. 2001). Evidence also indicated that work-family conflict is associated with a lower level of job satisfaction and a higher propensity to leave the organization (Burke, 1988). Some job-related factors such as work involvement, hours of work, and job flexibility were found to affect the level of work-family conflict (Ngo and Lau, 1998). Because of heavy job involvement, as well as long and inflexible working hours, it seems that clergy experience a higher level of work-family conflict than other workers. In brief, work–home conflict is the perceived conflict between the demands of work and family (Cooper et al. 2001).

ROLE OVERLOAD

Role overload refers to the sheer amount of work required and the time frame in which work must be completed (Cooper et. al. 2001), it occurs when work roles require more time and effort than an individual has for them so that the roles cannot be performed adequately and comfortably (Markham and Bonjean, 1996). Previous research has shown that role overload is related to higher levels of strain, anxiety and depression, as well as poor job performance (Cooper et al. 2001). Role overload is an issue for clergy since they work an irregular schedule that involves [International Journal of Research in management ISSN 2249-5908 Available online on http://www.rspublication.com/ijrm/ijrm_index.htm Issue 2, Vol. 5 (september-2012) Page 53] unpaid overtime. They are expected to have high involvement in multiple work roles (Beck, 1998) and, thus, they are likely to suffer from role overload. In brief, work overload reflects the degree to which work requirements (environmental demands) exceed the individual‘s abilities.

ROLE CONFLICT

Role conflict is a feeling of being torn in multiple directions, unable to find a way to make every role partner satisfied. It occurs when, for example, a manager believes that the expectations and demands of his or her boss and customer are incompatible. In other words, Role conflict refers to the incompatibility in communicated expectations that impinge on perceived role performance (Rizzo et al. 1970). lt exists when an employee faces incompatible expectations such that compliance with one expectation would make it difficult or impossible to effectively comply with the other expectations (Kahn et al., 1964). Similar to role ambiguity, role conflict was found to be associated with numerous undesirable consequences, including lower job satisfaction, organizational commitment, job performance, and higher turnover intentions (Jackson and Schuler, 1985). Role conflict is a problem for managers because they need to interact with

different groups of people, including stakeholders with diverse backgrounds, who make different expectations and demands on their time. They also need to perform a multiplicity of roles (Kay, 2000). When these role expectations are incongruent and conflicting, and managers do not have sufficient time and resources to fulfill these role expectations, they are likely to experience role conflict.

ROLE AMBIGUITY

Role ambiguity is the perception that one lacks information necessary to perform a job or task, leading the perceiver to feel helpless. It is a manager's uncertainty about the expectations of different members in his or her role set (e.g., boss, customers). In other words, role ambiguity occurs when an individual does not have clear information about the expectations of his or her role in the job or organization (Rizzo et al, 1970). As shown by previous studies, higher levels of role ambiguity are related to lower job satisfaction, more job-related tension and anxiety, lower work commitment and involvement, lower job performance, and a greater propensity to leave the organization (Jackson and Schuler, 1985). Managers are likely to experience role ambiguity when their work role is not clearly defined and they need to perform diverse tasks and duties (Kuhne and Donaldson, 1995). As they work independently, managers may not receive clear and sufficient information about their work role requirements and expected performance from the organization. Monahan (1999) examined the antecedents of role ambiguity and suggested that unclear boundaries between employees and lay people, and among those employed in different locations, were the main sources of role ambiguity. She further found that the employee task load, job description and background characteristics, such as specialized training and tenure, were associated with role ambiguity. In brief, Role ambiguity is the unpredictability of the consequences of one's role performance and lack of information needed to perform the role (Cooper et al. 2001). International Journal of Research in management ISSN 2249-5908 Available online on http://www.rspublication.com/ijrm/ijrm_index.htm Issue 2, Vol. 5 (september-2012) Page 54

PSYCHOLOGICAL CAPITAL

Taking a new approach, this study draws from both positive psychology and the emerging study of positive organizational behavior to investigate whether the recently identified core construct of psychological capital may be a key factor in better understanding not only how employees perceive stress symptoms, but also the impact of stress on work-related behaviors. The core construct of positive psychological capital (Luthans, Avolio, et al., 2007; Luthans, Youssef, et al., 2007) has been defined as ―an individual's positive psychological state of development and is characterized by: (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success‖ (Luthans, Youssef, et al., 2007). This operational definition differentiates the core construct of PsyCap (efficacy, optimism, hope, and resilience) from the widely recognized aspects of human capital (what you know in terms of knowledge, skills, abilities, and experience) and social capital (whom you know, including your network of relationships). Recent research has empirically supported

PsyCap as a higher-order core factor (Luthans, Avolio, et al., 2007) that is open to development (Luthans, Avey, Avolio, Norman, & Combs, 2006; Luthans, Avey, & Patera, 2008) is associated with higher performance (Luthans, Avolio, et al., 2007) and may affect employee stress levels.

ROLE ANXIETY & INSECURITY

First, information and communication technologies have been known to induce anxiety and tension in users (Marcoulides, 1989). Depending on an individual's disposition toward information and communication technologies, his or her interaction with computers can be fraught with nervousness and apprehension. This can create psychological effects such as insecurity about information and communication technologies, and can decrease confidence and overall comfort about their use. A few studies (Brillhart, P.E., 2004) have discussed individuals' attempts to deal with feelings of anxiety and stress in their efforts to reorganize familiar work habits and deal with increased possibilities for remote supervision, multitasking, and pervasive connectivity. Such conditions could lead to feelings of helplessness and of being hassled, and can result in aversion to (Abdul-Gader, A.H., and Kozar, K.A., 1995) and phobia about (Hudiburg, R.A., and Necessary, J.R., 1996) the use of computers.

INVASION OF PRIVACY

Invasion of privacy involves the perception that an individual's privacy has been compromised (Alge 2001). The use of information and communication technologies creates stress in users and is caused by an inability to adapt or cope with new information and communication technologies in a healthy manner (Brod, C., 1984; Weil and Rosen 1997). For instance, the pervasiveness of modern information and communication technologies often results in almost constant ―connectivity‖ through e-mail, the Internet, and the phone. Individuals feel that because they are always connected, they are ―on call. This leads them to believe that they have lost control over their time and space, which creates feelings of being stressed out.

COGNITIVE PROCESSING

Information and Communication Technology users are regularly inundated with information from many different sources. Such information is frequently more than they can effectively process. This, combined with increasing levels of complexity in the ever changing information and communication technologies, creates feelings of being unable to cope and leads to stress. Technostress, therefore, is one of the fallouts of an individual's attempts and struggles to deal with constantly evolving information and communication technologies and the changing cognitive and social requirements related to their use. Its effects have become increasingly apparent over the past few years with the rapid proliferation of information and communication technologies in the workplace. There have also been studies on the stress experienced by information systems personnel (Ivancevich et. al. 1983; Li, E.Y., and Shani, A.B., 1991; Sethi et. al. 2004). However, there is little systematic research that tries to understand the stress-creating aspects of information and communication technologies and their effects on the *users* of information and communication technologies in organizations. Given the rapid and ever changing developments in information and communication technologies in recent years, there have been dramatic and irreversible changes in the workplace, and new concerns have emerged with regard to managing these changes (Markus, M.L., 2004). For the most part, the use of

information and communication technologies in the workplace is not optional. It is therefore important to understand the stress-creating effects of information and communication technologies. Although these studies establish the importance of Technostress, it is not clear which characteristics of technology create stress. This conceptualization essentially black boxes the Technostress phenomenon, making the boundaries and relationship between technology characteristics and stress ambiguous. For example, one of the dimensions used to capture Technostress is techno-overload, which asserts that there is greater workload and this is caused by technology. However, it is not clear what characteristics of technology are causing this increase in workload.

CONSEQUENCES FOR ORGANISATIONS

Workplace technostress may have consequences for organisations as well as individuals. Certainly, organisations failing to tackle the problems of technostress can expect to experience high levels of absenteeism and staff turnover. Managers who suggest that employees must simply cope or leave the organisation may not realise the potential costs of retraining new staff in the technology skills required. At the same time, far-sighted UK library managers must look to the United States, where employees have increasingly been litigating against organisations on the grounds of work-related stress (Goss 1994:134-35). At the same time, European Union law is increasingly affecting UK managers' demands on staff; a recent example is the EU Directive on maximum working hours, whose introduction may have a bearing on work-related stress litigation.

Bartlett (1995:229) suggests that increased use of automation has led to a flattening out of the pyramidal organisational structure "allowing people to self-manage in smaller groups". Certainly, library managers must accept that employees typically favour participatory management style in the implementation of automation, as Winstead (1997:19) has shown in her study of three academic libraries in the US. Managers may find that top-down communications are less well received, if not less effective, when automation is being introduced.

WAYS OF COPING WITH TECHNO STRESS

- Get adequate, user friendly software
- Create better communication within the environment
- Create a level of reassurance, patience, and stability within the environment
- Maintain an ever-present system of training and education to new and old technologies
- Avoid using technology
- foster sharing of computer related knowledge within the organization.
- A responsive and easily reached help-desk can allay managers' anxiety and concerns, guide them in using and familiarizing with new computer applications and assure them in case of problems

- keep employees"involved" in the general scheme of things in the context of new computer systems. The more involved and familiar they are, the less techno - stressed they would be.
- encourage people to "experiment" and innovate in the context of computer use
- encourage employees to communicate, discuss, and share their knowledge about computers

REFERENCES

1. Atherley, Rosemary, "Hidden Resources", *Scottish Libraries* 10 (5) 59, September/October 1996, 19-21.
2. Bartlett, V., "Technostress and Librarians", *Library Administration and Management* 9(4) Fall 1995, 226-30.
3. Brod, Craig, *Technostress: the Human Cost of the Computer Revolution* (Reading, Mass.: Addison-Wesley, 1984).
4. Clark, Katie and Sally Kalin, "Technostressed Out?: How To Cope in the Digital Age", *Library Journal* 121 (13) August 1996, 30-32.
5. Coghill, Roger, *Electro Pollution: How to protect yourself against it*. Wellingborough: Thorsons, 1990.
6. Etkin, C., "Creating a core knowledge for electronic reference services", *Tennessee Librarian* 48 (1), Winter, 1995-96, 16-28.
7. Fisher, D., "Technostress and the librarian: a critical discussion", *Education Libraries Journal* 39 (2), Summer 1996, 9-14.
8. shttp://www.rspublication.com/ijrm/ijrm_index.htm Issue 2, Vol. 5 (september-2014) Page 55