A Literature Review For The Occupational Stress Management Among The Faculties of Engineering Colleges in The N.C.T. of New Delhi

Prashant Vats [1], Suman Nehra [2], Saroj Vyas[3]
[1]School of Education, Indira Gandhi National Open University, New Delhi, India.
[2]R. C. Institute of Technology, GGSIP University, New Delhi, India.
[3]Fairfield Institute of Mgmt. & Tech., GGSIP University, New Delhi, India.

Abstract- *Stress is a dynamic condition in which an individual is confronted with an opportunity, a demand or resource related to what the individual desires and for which the outcome is perceived to be both uncertain and important. As teaching organizations become more complex, the potential for stress in teaching faculty member increases. The stressors which are responsible for inducing stress in terms of physiological, behavioral and psychological stress in teaching faculty members need to be analyzed and measured.*

The main objective of the present study was to study stress in Engineering College faculty members and its relationship to role stressors and job satisfaction.

I. STRESS AND THEORETICAL BACKGROUND

Surveying definitions of stress, Cox (1978) [45] has described three classes of definitions. Stress can be thought of as a response i.e. the stress response to an extreme stimulus; as a stimulus i.e. as the stressor itself and as an intervening variable. As commonly understood, it is the mismatch between personal resources and environmental demands that leads to the condition called 'Stress'.

Based on the findings from both research and practice a comprehensive definition of stress is "stress consists of any event in which environmental demands, internal demands or both, tax or exceed the adaptive resources of the individual, social system or tissue system" (Farmer, Monahan and Hekeler, 1987) [46].

One useful definition of stress is "Stress is a demand made upon the adaptive capacities of the mind and body". David, F. (1989) [47].

The most basic fact about stress is that, like feelings, stress is experienced. The feeling of stress is an act in which there is a reference, not a causal relation to an object that is intended or intentionally presents.

In short, stress is a dynamic condition in which an individual is confronted with an opportunity, a demand or resource related to what the individual desires and for which the outcome is perceived to be both uncertain and important. Simplifying the definition of stress for the purpose of this research it may not be taken "as an adaptive response to an external situation that results in physical, psychological, and or behavioral deviations for organizational participants."

II. SOURCES OF STRESS

Sources of stress come from a variety of areas such as families' friends and the work environment inclusive of the person himself/herself. Stress can emanate from a combination of these sources. Pestonjee (1992) [48] has identified three important sectors of life from which stress may originate namely job and organization, social sector and intra psychic sector.

Sources of stress can also be categorized differently. Brown (1984) [49] has listed five categories as follows:

1) Customary anticipated life events (any major change in life) for example marriage, divorce, children leaving home, retirement etc.
2) Unexpected life events (any major life event which occurs suddenly) for example, major accident, sudden loss of job, terminal illness etc.
3) Progressive, accumulating situational events: (any continuously recurring problems in life's activities) like daily hassles, job and family stress, school stress etc.
4) Personality glitches: (any personal traits that create social problems) such as poor communication, self-esteem, insecurity, lack of confidence, poor decision making and fear of failure.
5) Value dependent traits: (circumstances generating thought, feeling and conflict) for instance revolutions, broken homes, moral dilemmas, peer pressure etc.

III. ROLE STRESS AND ROLE STRESSORS

As teaching organizations become more complex, the potential for stress in teaching faculty member increases. The stressors which are responsible for inducing stress in terms of physiological, behavioral and psychological stress in teaching faculty members need to be analyzed and measured.

Role can be defined "as a set of functions which an individual performs in response to the expectations of the significant members of social system and his own expectations about the position that he occupies in it". Pareek (2010) [50]. Within the organization, certain behaviours and demands are associated with the role fulfilled. However, dysfunction may occur at two different levels which can be major sources of work stress namely role conflict (Kahn et al. 1964) [51] that is conflicting job demands and role ambiguity which means lack of clarity about the task. It was suggested (Rizzo et al. 1970) [52] that these two role stresses are related to job dissatisfaction and inappropriate organizational behavior.

Responsibility can also be identified as a potential stressor associated with one's role in the organization. However, lack of responsibility may also be stressful if the individual perceives this as work under load and too little responsibility may also be a source of managerial stress Payne (1980) [53]. Poor working relationship among co-workers in an organization is also a source of stress. "The interpersonal demands and social pressures which arise from social system relationship at work may be potential sources of stress." (Quick and Quick , 1984) [54].

Ivancevich and Matteson, (1980) [55] stated that "career stress category of potential stressors include job insecurity, over promotion, under promotion and thwarted ambition". Individuals suffering from career stress often show job dissatisfaction burnout, poor work performance and unsatisfactory interpersonal relationship at work.

Occupational stress leads to role stress. There are two role systems namely role space and role set. The concept of role and the two role systems have a built in potential for stress.

IV. STRESS MANAGEMENT

4.1 COPING STRATEGIES AND RELATED STUDIES

"Outer Circumstances and events don't create stress. It is our response to them which creates stress." Nuernberger Phil (1990) [57]. Stress is a fact of life and individuals react to stress in different ways. Some individuals deal with stressors in a positive way with a proper understanding of the phenomenon and its effect. Taking appropriate action to optimize, reduce or prevent stress may be beneficial both for the individual and organization.

Stress management is a means to enhance coping with external stressors and their internal consequences. Stress management has three broad options – prevent or control, escape from it, or learn to adopt to it (handle its symptoms). As prevention is better than cure, steps should be taken to prevent the occurrence of stress rather than treat its harmful effects or bear a heavy cost when the damage is already done.

Effective stress management can be done at the individual level and at the organizational level in many different ways. Stress management can be divided into two phases: the first is coping with stress and the second is counteracting the stress with the help of relaxation response. "Preventive programs which emphasize individual training in stress management are among the most frequently offered health promotion services at work site" (Donaldson, 1993) [57]. Such interventions have been directed towards the development of individual coping strategies leading to stress management.

Preventive Stress Management has three stages: primary, secondary and tertiary.

1) Primary Prevention is intended to reduce, modify or eliminate the stressors.
   It is largely an organizational matter as it can change and shape the demands it places on people at work.
2) Secondary Prevention is intended to modify or alter the individual's or organization's response to stressor. People must learn to manage the inevitable, unalterable work stressors so as to avert distress and strain while promoting health and well being.
3) Tertiary Prevention is intended to heal the individual or organizational symptoms of distress and strain. These Symptoms may range from early warning symptoms such as headaches or absenteeism to more severe forms of distress such as hypertension, work stoppages and strikes. Tertiary prevention is therapeutic aimed at arresting distress and healing the individual, the organization or both.

A review by Murphy (1984) [58] looked at worksite stress management programs utilizing muscle relaxation, biofeedback, meditation, cognitive restructuring, behavioral skills training and combination of these methods. He concluded that these techniques offer promise in helping workers cope with stress.

Coping is a core concept in stress literature and a variety of coping measures have been used. Surprisingly research on stress and coping has ignored gender related differences in the appraisal of stressful events. An analysis of particular "coping strategies used by men and women across occupations with similar stressors and context is important because the degree to which stressful events result in distress or negative outcomes is related to the coping strategies one uses" Sharma and Acharya (1989) [59] states that Moreover "an understanding of the personal and work environmental contexts of coping is required before an attempt is made to modify coping responses" (Long, 1990) [60].

4.2 Coping Strategies

Individuals and Organizations cannot remain in a continuous state of tension. "The term 'Coping' is used to denote the way of dealing with Stress, or the effort to master the conditions of harm, threat, challenges when a routine or automatic response is not readily available" (Lazarus 1974a)

These are two approaches by which people cope with stress

(1) Passive approach: When people either suffer or deny the experienced stress or put the blame on others it is called passive approach. It is the reactive strategy or dysfunctional style of coping.
(2) Active approach: It occurs when people face the experienced realities of stress and clarify the problems through negotiations and discussions with other members. This is proactive strategy or functional style of coping. The active approaches are more approved by Social Scientists as they are supposed to be more effective and healthy when compared to passive approaches or dysfunctional styles (Pareek, 1983b) [61]

There are basically two ways to manage stress

a) At individual level
b) At Organizational level

At individual level, again there are two ways of dealing with stress

(1) By drug therapy
(2) By non drug treatment

In Drug therapy, individuals use drugs continuously to cope with stress related ailments such as headaches, backaches etc. In non-drug treatment the coping is more advantageous and much safer, for example exercise, yoga

relaxation response, such as acupuncture, zen or meditation, hobby, practice relaxation techniques, rearrange schedules etc.

Tubesing and Tubesing (1982) [62] have suggested that stress management approaches should cover all aspects of human experience. They have grouped the coping techniques with life stress into four major categories namely personal management skills, relationship skills, outlook skills and stamina skills. According to these authors, relaxation skills are important for management of stress. In general, "relaxation skills help one to develop the art of cruising in neutral".

Maddi and Kobasa (1984) [63] talked about two forms of coping- Transformational and Regressive. Transformational coping involves altering the events so that they are less stressful. This can be done through interaction with events, optimistic thinking and acting towards them decisively and change them in a less stressful direction. Regressive approach includes a strategy where one thinks about the events pessimistically and acts evasively to avoid contact with them.

Lazarus (1975) [64] suggested a classification of coping processes which emphasizes two major categories: direct actions and palliative modes namely direct action coping and palliative coping. Social and emotional support available to the person helps him / her to effectively cope with stress.

The most functional style of coping with stress is one in which the individual shares stress with another person and jointly finds ways of managing it. Researchers Sharma S. and Acharya, T. (1989) [65] commented on the paucity of meaningful research on coping strategies to deal with stress in different occupational groups.

a. Individual stress coping strategies

Some specific techniques that individuals can use for coping with stress include the following

Physical Exercise: Physical exercise is necessary to keep the body healthy both physically and mentally and is the best antidote for stress. Emotional strength is a by-product of regular exercise, and self confidence is a natural consequence. Regular and regulated physical exercise includes walking, jogging, swimming, aerobics, riding bicycle, playing outdoor games etc. Physical fitness helps the body to cope better with stress, whereas relaxation techniques are useful for the mind. Physical exercise is said to offer the best cure to work related stress. In Japan, provisions for physical exercises at the workplace are made compulsory with every break, in tune

with biological rhythms, whereas in India, natural cycles of activity that is work and rest are completely ignored.

b. Relaxation Practice

Yoga: Yoga is a holistic science concerned with all aspects of human functioning. It involves various body postures and breathing exercises.

Relaxation: Relaxation removes fatigue and drives attention away from work or a stressful situation. It is useful in managing a prolonged stressful situation more effectively. Different people respond differently to relaxation activities.

Meditation: "Meditation is of far greater importance than medication for whatever afflicts mankind today." (Bhamgara,1997) [66]. It is a mental relaxation technique which has proved to be of immense value to relieve stress and re-energize the body, reduce psychological problems such as anxiety and depression and lead to better emotional and physical health. Practicing meditation results in tranquility and peace of mind. It helps in lowering the pulse and heart rate, induces a more objective thinking process with an unbroken and maintained concentration. The commonly practiced techniques of meditation are yoga and relaxation response.

Biofeedback: Biofeedback is a specific relaxation technique which is now being used for treating psychosomatic disorders like hypertension, tension, headaches, migraine headaches, backache, depression etc. Sophisticated biofeedback instruments have been developed that constantly inform the user about the changes which are characteristic of stress within his/her body for example, the intensity of muscle tension, skin temperature, heart rate, blood pressure etc.

Recreation and Leisure time activities: Recreation provides an opportunity to let oneself go, become inhibited thus reducing tension and stress. There are various forms of recreation like music, entertainment, painting, movies, parties, gardening, dancing etc. "Recreational pursuits are important to the prevention of the damaging effects of stress" (Husain,1998) [67]. Leisure time can be used for doing some activities which give pleasure and help in building connections with others. Hobbies can easily be pursued in leisure time.

Diet: These days' dietary practices are being used to improve a person's overall health making him/her less vulnerable to stress. One's lifestyle, occupation, climatic conditions and body constitution should determine both the quantity and quality of one's diet. A proper diet can prevent stress caused by unhealthy dietary habits.

Sleep: Human errors caused by drowsiness and sleepiness may lead to accidents and tragedies. "Drowsiness is an urgent warning that should not be ignored" (Castleman, 1997) [68]. A good night sleep helps to restore physical resources and increases the stress tolerance level. A person with large sleep debt is more vulnerable to infections and other illnesses. An increased need for sleep is the body's mechanism for producing the desired recovery. Adults require at least 7 to 8 hours of sleep daily even though individual differences in sleep patterns and sleep needs vary.

Time management: Time management is important for people who maintain a busy schedule. They need to prioritize their activities to avoid stress from time pressure and overtime work. Time management helps to balance work and leisure time activities. Working late may also alleviate stress. Working professionals who are dedicated to work are often "overworked" which has an adverse impact on their mental and physical wellbeing. Premature ageing is also seen as a consequence of overwork.

Behavioral Self Control: Individuals can manage their own behavior to reduce stress and can avoid people and situations that they know will put them under stress. It is a type of self-cure technique. Even "Cognitive therapy" may be used to alter an individual's self-defeating thoughts that unnecessarily cause a strain by making him conscious of the effects of his thoughts on his physiological and emotional response.

Networking or Social Support: Social psychology research has indicated that people benefit from social support. Networking requires forming associations with trusted, empathetic people who may be family members, neighbors or co workers and colleagues who are good listeners and confidence builders. These people provide support whenever needed and help individual overcome stressful situations. This kind of socio-emotional support received from personal relationships is necessary not only outside the work place but also within the workplace.

c. Organizational stress coping strategies

Some organizations are low-stress causing whereas other organizations are high-stress ones that may place their employees" health at risk. Organizational stress-coping strategies focus on people's demands and ways to reduce distress at work. These strategies are to be designed by management to eliminate or control organizational level stressors in order to prevent or reduce job stress for individual employees. The organizational stressors may be in form of overall policies, structures, physical conditions and processes or functions. In developing organizational stress coping

strategies each of these areas should receive attention and each of the specific stressor is to be worked on to eliminate or reduce job stress.

Most organizational stress prevention is primary intervention Sharma. R.A. (2000) [69] has suggested some preventive strategies such as personnel selection and placement, skills training, job redesign, role negotiation, increased participation and personal control, team building and cohesive workgroups, improved communication and career counseling.

Pareek (1994) [70] has suggested organizational intervention as the "OCTAPACE" culture. It includes

O - Openness T - Trust
C - Collaboration A - Autonomy
P - Proaction C - Confrontation
A - Authencity. E- Efficiency

All these aspects promote the fulfillment of individual needs, improve problem solving and facilitate change. Pestonjee D.M. (1987) [71] has suggested some organizational interventions for counteracting stress such as undertaking stress audit, use scientific inputs, check with company doctors and spread the message.

Murphy (1988) [72] has suggested three different forms of stress management techniques namely stress management training programs, employee assistance program, stress reduction / intervention programs.

V. STRESS IN TEACHING PROFESSIONALS AND RELATED STUDIES

The profession of teaching in modern age is not so simple as it was in old days. The old values to respect the teacher have been replaced by commercial attitudes, as a result of which a teacher has to face varied unexpected behavioral situations. The priority agenda today is to prepare teachers for tomorrow enabling them to meet the changes ahead. Dr. Chaurasia, Rohidekar, Singh and Dev Raj (1998) [74] in their book stated that "teaching personnel - in general education and those in teacher education must be allowed to concentrate on the primary functions of teaching as pertinent to their role and level. Remaining with crucial care we should provide an enhanced basis for excellence in teacher education".

In 2000, Wiley [13] reported that the consequences of stress can take the form of behavioral characteristics like Disturbing the interpersonal relationships or decrease in the work performance. He also found that some amount of stress

experienced by the teachers is due to school's culture and climate.

McGrath (1976) [14] defined stress from a psychological point of view which is an interaction between the individual resources and environmental demands.

In 2001, Kyricou [15] defined teacher stress as a teacher's experience in relation to the negative and unpleasant emotions .The stressful conditions results in decrease in communication, motivation, performance etc. The unpleasant environmental demands or stimuli that cause stress are referred to as stressors.

Lazarus (1984) [16] defined stressors as the experiences and conditions of daily living that are appraised as salient and harmful or are threats to a person's well being.

Eckert and William (1972) [17] reported that routine duties, long hours, poor facilities, friction in interfaculty relations and administrative red tape were the most important sources of stress.

Another study by Shull (1972) [18] identified personal capacity of faculty members, inadequate organizational resources and serious time constraints as major sources of stress in academe.

One research by Dinham (1998) [19] found teaching as stressful and the major sources of stress comes from work related issues. Workload is considered as the most important source of stress in education sector by TUC Survey in 2004 [13]. Many other researchers are being conducted on the sources of stress in teaching professions also found that workload contributes a significant part in producing stress [20, 21].

Work load includes sheer number of hours on the job, administrative work [22], being frequently called by the institutional works, also found statistically significant correlation between workload in form of hours of work and its ill effects on physical health [23].

The second stress generating factor is Role conflicts. The Role conflict can be defined as "reflects incompatible demands on the person (either within a single role or between multiple roles occupied by the individuals, it can induce negative emotional reactions due to the perceived inability to be effective on the job" [24].

Disruptive behavior by students was also found to be one of the important stressors for faculty [25]. Student related

issues involve faculty conflicts with students over evaluation, advising and teaching. Organizational structural & procedural characteristics are supported by many researches as a considerable source of stress [26, 27].

Organizational structural and procedural characteristics involve decision making process, management styles, performance appraisal, support for research, rules & regulation etc. Abouserie (1996) [29] found poor relationship with colleagues as one of the important factors producing stress.

Blix et al. (1994) [30] in their research on "occupational stress among university teachers" found out that two third of the university faculty reported that they perceived job stress at least half of the scheduled time. Faculty also expressed burnout, health problems caused by job stress, decreased work output, low capacity to manage the work stress and basis of job change.

Shobitha Poulose and Sudarshan (2014) [31] attempted and presented deeply report on work life balance towards newer and depth search for the directions of future research. They presented research gap for better modeling and thereby enable accurate mathematical models to estimate the WLB among employees towards ensuring higher performance deliverance. The uses of cognitive techniques such as fuzzy and neural network are also required in the work life balance. Since work-life balance is cognitive psychological problem. The techniques are also imitates or simulates the human cognitive behavior.

K. Santhana Laksmi and S. Sujatha Gopinath (2013) [32] concluded that new organizations, especially educational institutions should constitute the work life balance of staff members(women) and take a holistic approach to manage their work life balance which would add to the performance of these staff members.

Nalwade K. M. et.al (2013) [33] done a literature review on quality of work life in academics and explores earlier research in the academic area. The researcher explains quality of work life on Walton's eight factors. They establish its relationship with employee demographic variable, stress, satisfaction, commitment, performance, job satisfaction which reveals that the former are the determinant of QWL.

Rajareegam et.al (2012) [34] have concentrated on the job satisfaction of teachers in Engineering Colleges at Pondicherry. It is presumed that there is no critical distinction between sexual orientation, age bunches, marital status, institution's status, qualifications of teachers, college type,

work load, compensation, promotion opportunities and teaching knowledge with job satisfaction.

Naveen Kumar [35] [2015], is to critical review the existing literature on occupational stress of a teacher and explores its findings to develop a new insights and future directions for further research. He observed that factors responsible for occupational stress in teaching environment i.e. working environment age factor and job security besides that paid leave role conflict and technological changes are the factors, which lead to occupational stress in international scenario.

Waqar M Parray [36] [2016], has tried to assess the level of stress of the teachers working in Universities, Secondary Schools, Elementary Schools, and teachers working in different organizations. Researchers have suggested several ways to put check over the unjustified stress to promote sound health and well-being.

Qian Meng [37] [2018], has pursued their work to investigate the stress level of university faculty members, the important determinants of faculty members' stress, and the implications for both faculty members and administrators. In their findings they have observed On the one hand, the faculty members should recognize the positive impact of occupational stress while striving to eliminate stressors. On the other hand, this empirical study uncovered that the evaluation mechanism based on quantitative performance indicators has greatly increased the occupational pressure on university faculty members.

Sabherwal and others (2015) [38] conducted a study to investigate reasons for occupational stress among teachers of higher education and to examine the correlation between stress and job satisfaction. It was found that Demand related factors causing maximum stress were lack of regular breaks (85%) and long working hours (83%), 53% of respondents felt occasionally stressed out with frequent changes to timetable or courses, poor pay prospects (81%) ,added maximum stress followed by efforts not valued (69%) and lack career development opportunities (68%) were the greatest factors affecting stress.

Hans and others (2015) [39] conducted a study to describe the phenomena related to Quality of Work Life (QWL) and Occupational Stress among business management lecturers in private colleges of Oman. The study found moderate work stress among the management teacher in private collages in Oman. Study indicated that occupational stress score among management lecturers were relatively lesser than the average; the statistics indicated that occupation

stress is negatively affecting the QWL of teachers in management institutions in Oman. It suggests that, the employees working in such organizations are withdrawing satisfaction from the workplace.

Khan and others (2014) [40] found that the negative relationship of job stress with job performance, job satisfaction, and life satisfaction among college lecturers in Faisalabad division Pakistan. The study used questionnaire based survey method for data collection; the participants are one hundred and forty college lecturers equal from different public higher educational colleges. The findings of the study indicated that the level of stress and turnover intentions in unmarried lecturers is high as compare to married lecturers. It was found that due to job stress the job performance and job satisfaction decreases and the turnover intentions increases, unmarried employees showed high job stress as compared to married employees due to poor peer relations and low social support from the family members.

Singh (2014) [41] carried out a study to assess the level of occupational stress and perception of various occupational stressors among the faculty members of private medical and engineering colleges. The final sample comprised of 310 faculty members, from seven private colleges (three medical and four engineering) of Uttar Pradesh. It was found that 69% of respondents reported moderate of Occupational Stress, 12% of females where high stress was perceived by only (less than the other categories) whereas perception of moderate stress was 74% . The findings of the present study also revealed no significant gender difference in the overall perception of stress. This shows that with the changes in socio-cultural norms, females are becoming equally competent in handling occupational stress although there can be domain specific gender differences in the perception of stress.

Raza (2012) [42] reported that majority response (67%, 206) indicating that stress is not a big problem in the environment of higher education institutions, (30%, 92), indicate moderate levels of stress experienced by university teachers, 46% (141) faculty members expressed a high level of job satisfaction. Results indicate that most of the teachers do not perceive occupational stress as a big problem in university environment. They perceive administrative factors as highly contributing factor in job satisfaction. In last, insignificant relationship is found between occupational stress and job satisfaction. The research makes a fruitful contribution in the existing body of knowledge by reporting the phenomena of stress and satisfaction in faculty of universities of Pakistan.

Shah et al.(2012) [43] in their study on impact of stress on employee performance among teaching faculty,

found a negative relationship between organizational structure and employee efficiency while rewards were found to be positively correlated to employee efficiency as expected.

Rubina et al. (2008) [44] too found a negative relationship between job stress and job performance. However the male employees were found to be affected more than their female counter parts.

VI. CONCLUSIONS

Faculty stress at higher education is becoming one of the major issues around the world. As compared to job stress in corporate world, educational institutions were considered to be a sector with low stress at work. With the recent developments such as increased competition, high rate of return etc at the higher education in India, educational institutions are occupying great deal of attention.

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