Research Paper

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Coping of Stress among Engineering Teachers

Commerce

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ABSTRACT

Teachers of technical institutions in India are experiencing pressures to increase productivity and efficiency at their work places to meet out the expectations of general public, management, students as well as from state and central governments, which creates stress among them. In the field of engineering and technology, there is a significant gap in the study of stress among the teachers. A questionnaire survey was conducted among 478 engineering faculty members with objectives to find out whether colleges adopt coping strategies in an attempt to reduce the stress levels of teachers and the significance of association of such strategies and the stress level. The results revealed that variables such as career development and stress management counseling are associated with level of stress at one per cent significant level.

INTRODUCTION

Give your stress wings and let it fly away.
~ Carin Hartness

The technical education system in India can be broadly classified into three categories viz. Central Government funded institutions, State Government / State-funded institutions and Self-financed institutions. Technical education covers courses and programmes in engineering, technology, management, architecture, town planning, pharmacy, applied arts & crafts, hotel management and catering technology. "Engineering Education' is the activity of teaching knowledge and principles related to the professional practice of engineering. Teachers are considered as a core stone of successful education system. Teaching has often been attributed to be a physically wearing and psychologically stressful occupation (Sarah Basu, 2009). In higher education, pressure is mounting from the general public, management as well as from state and central government, to increase productivity and efficiency. This pressure will likely intensify the stress experienced by faculty.

A survey at a research university, found that most faculty descried their job at least fairly stressful due to competing demands (Olsen and Maple, 1993). A teacher who works in stress free environment can perform his duties efficiently and effectively and has a positive attitude towards teaching, but if he is under stress then he cannot work effectively and has a negative attitude towards his job. High stress can cause teachers to leave the profession. Stress is one of the many reasons teachers leave their jobs; unfortunately, many engineering colleges cannot find sufficient replacements and currently face several teacher shortages. The word stress is derived from the Latin word "stringere" which means "to be drawn tight". The term stress as is currently used was coined by Seyle (1936), one of the founding fathers of stress research, is defined as "the non-specific response of the body to any demand for change."

Though stress can't be removed from life permanently, it can be managed with a little effort from our part. Especially in current time when stress keeps on attacking from all the sides it becomes difficult to control it. So it is better to know the ways to manage it. Both organizations and employees should take steps to deal with stress. The word coping has been used mainly with two meaning - ways of dealing stress and the effort to master harmful conditions, heat or challenge (Pareek, 1997). When people are exposed to a stressful demand, they respond by coping attempt either to reduce the demand for decreasing its effect, or to help one by changing the way one thinks about the demand. Coping can either help one in stressful situations or increase the kind & number of problems created by the demand (Shapior 1996).

Given the paucity of research that investigated the work stress in engineering education in India, there is a need to fill this gap by examining whether colleges adopt coping strategies in an attempt to reduce the stress levels of teachers and the significance of association of such strategies and the stress level**.** The findings of the study may be immensely useful to the stakeholders of higher educational institutions.

RESEARCH METHODOLOGY

The primary data are collected through making questionnaire. The study was conducted during the academic year 2011-12. Coimbatore district in Tamil Nadu state, India is chosen for the stud because large number engineering colleges are functioning in the district. Engineering teachers working in six self-financing autonomous engineering and technology colleges, 52 self-financing non-autonomous engineering and technology colleges and four deemed universities in the Coimbatore district were selected for the study. Totally 600 questionnaires were distributed among the selected population using convenient sampling method. Of which, only 478 questionnaires are complete in all aspects and considered for the study. Chi-square test was used to analyse the data.

COPING OF STRESS

While some of the responsibility for stress management belongs to the teachers, it is also clear that no personal coping strategy is adequate to solve the problems of engineering teachers as they now exist. Personal strategies can make a difference but certainly not all of the difference. Solutions also require changes among the demands, structures, policies and values of disciplines and institutions. Institutions (employers) can do much to create environments that encourage and model balance for faculty members. New faculty orientations and programs to support mentoring, research and development, training for department chairs, solutions to the deeper tensions among the issues of roles and responsibilities, rewards and recognition and collegiality are more difficult to achieve. But these are the issues that colleges and universities will need to address if they hope to attract and keep the young people and prevent the teachers' burnout in the engineering academic profession. Human resource is the valuable asset for any organization. The success of the institution largely depends upon its teachers' capabilities and competencies. So in tough time institution should also take lead to manage stress at workplace. If any institution wants motivated and high-energy teachers in their organisation, they should create an environment that reduces workplace stress. Aqsa Akbar (2011) in his article, the most helpful strategy for coping stress preferred by the faculty members is physical activity with the highest mean, following self-management techniques, personal interests, entertainment, intellectual stimulation, supportive attitude and social interaction. For instance, Gaurav (2010) describes some cost effective strategies to minimize stress on the job and gives teachers opportunities to reduce the effects of unavoidable stress:

- Providing comfortable work environment whenever possible
- Creating a less formal atmosphere
- Allowing employees to mutually share their responsibilities
- Giving more decision making authority to teachers
- Recognition for work accomplished
- Creating opportunities to meet, socialize, and build working relationships
- Helping them to balance their work and personal life

Only a few organisations understand what stress is, how it affects their people and organisation and how to deal with it. One of the difficulties they face is that not all stress-related problems that affect teacher's attendance and performance are rooted in the workplace. The chances are that the situation will lead to changes in the teacher's behaviour, attendance or performance in the workplace. The starting point for managing stress at work at any time is good people management particularly on the part of front-line management people like head of the departments. They can help to prevent and manage stress at work or make it worse (Dutta 2009). It also proposes ways to reduce teachers stress, and prevent it from reaching unhealthy levels, by creating a caring working environment: first, by administrators (Institutions caring for teachers); then, by faculty members as a community (teachers caring for each other); and finally, by individual teachers (teachers caring for themselves).

ORGANISATIONAL COPING STRATEGIES AND LEVEL OF STRESS

In this study, twelve organisational coping strategies have been taken for the analysis with level of stress. Table 1 displays various organisational coping strategies and level of stress. In order to examine whether there is any significant association between organizational coping strategy and level of stress the following null hypothesis has been framed.

Ho: Organisational Coping Strategies are not associated with Level of Stress

It is inferred from the Table 1 that the percentage of teachers with high level of stress is high with teachers, who have never came under job rotation. The percentage of teachers with low level of stress is also high with teachers, who never come under job rotation. Comparing the percentage, it can be inferred that teachers who have never job rotation by their organizations have high level of stress. As the calculated chi-square value (4.225) is lesser than the table value at five per cent level (9.488), there does not exist any significant association between job rotation and level of Stress. Hence, the null hypothesis with regard to job rotation is accepted. Similarly, the rest of coping strategies are analysed with level of stress and the results are found.

CONCLUSIONS

In order to ascertain the association between the level of stress and coping strategies followed by organisations, twelve qualitative factors have been identified. In this study, the coping strategies adopted by the organisations for reducing their teachers' stress, nine variables are associated with level of stress The variables such as development of new skills, staff meetings, improvement in physical working condition, job security, developing autonomous work groups, providing refreshment during meetings and encouraging staff tour are associated with level of stress at five per cent significant level. Rest of the associated variables such as career development and stress management counseling are associated with level of stress at one per cent significant level.

TABLE - 1
ORGANIZATIONAL COPING STRATEGIES AND LEVEL OF STRESS

	Level of Stress			Tot N = 478	χ^2 Value
	Low N=60	Moderate N=338	High N=80		
i) Job Rotation					
N	26(13.80)	126(66.70)	37(19.60)	189	4.225
S	28(11.60)	175(72.30)	39(16.10)	242	
A	6(12.80)	37(78.70)	4(8.50)	47	
(ii) Job Redesign					
N	25(14.00)	122(68.50)	31(17.40)	178	0.867
S	30(11.80)	182(71.70)	42(16.50)	254	
A	5(10.90)	34(73.90)	7(15.20)	46	
(iii) Development of New Skills					
N	6(7.30)	55 (67.10)	21(25.60)	82	12.276*
S	30(11.70)	182(70.80)	45(17.50	257	
A	24(17.30)	101(72.70)	14(10.10)	139	
(iv) Staff Meetings					
N	2(7.10)	18(64.30)	8(28.60)	28	11.702*
S	20(10.20)	135(68.50)	42(21.30)	197	
A	38(15.00)	185(73.10)	30(11.90)	253	
(v) Improvement in Physical Working Condition					
N	11(11.60)	59(62.10)	25(26.30)	95	11.895*
S	29(11.20)	188(72.30)	43(16.50)	260	
A	20(16.30)	91(74.00)	12(9.80)	123	
(vi) Job Security					
N	14(11.50)	77(63.10)	31(25.40)	122	12.616*
S	27(10.80)	189(75.90)	33(13.30)	249	
A	19(17.80)	72(67.30)	16(15.00)	107	
(vii) Developing Autonomous Work Groups					
N	15(14.00)	65(60.70)	27(25.20)	107	11.088*
S	24(10.00)	182(75.50)	35(14.50)	241	
A	21(16.20)	91(70.00)	18(13.80)	130	
(viii) Career Development					
N	8(10.50)	45(59.20)	23(30.30)	76	20.143**
S	19(8.80)	161(74.50)	36(16.70)	216	
A	33(17.70)	132(71.00)	21(11.30)	186	
(ix) Providing Refreshment during Meetings					
N	3(6.10)	31(63.30)	15(30.60)	49	12.797*
S	20(10.30)	140(71.80)	35(17.90)	195	
A	37(15.80)	167(71.40)	30(12.80)	234	
(x) Arranging Family Get-together					
N	18(9.60)	130(69.50)	39(20.90)	187	7.052
S	29(14.00)	145(70.00)	33(15.90)	207	
A	13(15.50)	63(75.00)	8(9.50)	84	
(xi) Encouraging Staff Tour					
N	13(8.40)	104(67.10)	38(24.50)	155	11.972*
S	34(14.40)	172(72.90)	30(12.70)	236	
A	13(14.90)	62(71.30)	12(13.80)	87	
(xii) Stress Management Counselling					
N	17(8.80)	127(65.50)	50(25.80)	194	29.993**
S	30(13.60)	173(78.60)	17(7.70)	220	
A	13(20.30)	38(59.40)	13(20.30)	64	

N – Never; S-Sometimes; A-Always
Five per cent level: 9.488, One per cent level: 13.277
*** Significant at five per cent level;**
**** Significant at one per cent level**

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