

Stress and Strain: Faculty Performance

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This study investigated the contribution of stress on college teachers' work performance. 207 male and 93 female lecturers were the samples from a reputed university in South India and they completed a structured questionnaire. The hypotheses were that occupational stress and coping styles would explain the performance of college teachers, and gender would affect occupational stress, coping styles and college teachers' performance. There was a significant influence of occupational stress and coping styles on work performance. Male and female lecturers did not show any significant differences in occupational stress, coping styles and work performance.

Studies have consistently concluded that teaching is a stressful occupation, and that a significant number of teachers, perhaps even a majority, are affected by work-related stress (Rudow, 1999; Dunham, 1998; Kyriacou, 1989, 1999, 2001; Guglielmi and Tatrow, 1998). Comparative studies have echoed these findings: for example, in a 2005 study in the U.S., Johnson, Cooper, Cartwright, Donald, Taylor and Millet examined 26 occupations and concluded that teaching was one of the most stressful occupations.

Stress experts acknowledge the pressures of teaching. Cary Cooper, professor of organizational psychology and

health at the University of Manchester's Institute of Science and Technology, says teaching is not intrinsically stressful in the same way as the job of a bomb disposal officer. 'Teaching is a political football, it changes all the time,' he explains. The combination of continual change with frequent new government demands coupled with long, unsociable hours and poor pay, make up a stressful recipe. He also agrees



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with teachers' leaders that the workload is excessive. Although the working day may be shorter than most office working days, teachers put in many more hours in the evenings and at weekends preparing lessons, marking work and organizing extracurricular events, he says.

Teachers' Stress

Much of the research literature on the causes of teacher stress has focused on the highly interpersonal nature of teaching, and, in the compulsory sector, has identified disruptive behaviour by students, dealing with parents, and conflict with colleagues to be among the major sources of stress reported by teachers (Kyriacou, 2001; Griffith et al., 1999). These findings have also been echoed in the New Zealand compulsory sector (Dewe, 1986; Manthei and Solman, 1988; Whitehead and Ryba, 1995; Hawe, Tuck, Manthei, Adair and Moore, 2000). Most of this research has also identified other major stressors, such as workload and time pressure, role conflict and ambiguity, the working environment, and organizational and educational change. Some researchers have argued that structural rather than interpersonal factors are responsible for teacher stress; Manthei and Solman, for example, in their 1988 study of a group of New Zealand state schools, cite several other studies in support of their contention that "the major sources of stress for teachers are structural, and need to be recognized as such." As an example, they point out that reducing class size would have a significant effect on two of the major stressors reported by teachers, disruptive student behaviour and the physical working environment. In other words, organizational structures determine the extent of the impact on teachers of the interpersonal stressors inherent in their role.

There is also almost universal agreement about the effects of stress. Although some researchers (Guglielmi and Tatrow, 1998; Wainwright and Calnan, 2002) question the reliability of findings about causality, research across several disciplines in the field of occupational stress has consistently confirmed the relationship between stress and 10 negative emotional, cognitive, behavioural and physiological responses (Travers and Cooper, 1998;

Kinman, 2001; Hogan, Carlson and Dua, 2002). These responses include fatigue, substance abuse, appetite disturbances, heart disease, stroke, cancer, musculoskeletal and gastrointestinal problems, anxiety, depression, accidents and suicide (European Commission, 2002); hypochondria, loss of concentration, recall and creativity, inability to learn new things, indecisiveness, destructive behaviour, and refusal to seek help (Levi, 2002); headaches, sleep disturbances, low morale, irritability and relationship problems (NIOSH, 1999). These findings are corroborated in the research literature on teacher stress.

Coping Strategies

Folkman and Lazarus (1980, cited in Rice, 1992), define coping "as all cognitive and behavioural efforts to master, reduce, or tolerate demands." Adding to this definition, Matheny (1986,) defined coping as "any effort, healthy or unhealthy, conscious or unconscious, to prevent, eliminate, or weaken stressors, or to tolerate their effects in the least hurtful manner."

Comparatively little research has been conducted into the coping strategies employed by teachers (Griffith et al., 1999; Dunham, 1989). Most studies report a range of both emotion-focussed and problem-focussed strategies (Kyriacou, 2001; Dunham and Bath, 1998; Dunham, 1989); an exception is the survey of 532 New Zealand teachers conducted by Whitehead and Ryba (1995), where only emotion-focussed strategies were included in the checklist used, which had been compiled from items previously nominated by five teachers. In the tertiary sector, a range of both emotion and problem focused strategies has also been reported (Abouserie, 1996; Gillespie et al., 2001). There has been even less research into the effectiveness of different coping strategies. In one study, however, Griffith et al. (1999) surveyed the coping strategies of 780 U.S. teachers and investigated both emotion-focussed and problem-focussed strategies in relation to their stress levels. They concluded that strategies which involved disengagement (such as turning to other activities, sleeping, reducing effort, giving up) or suppression of competing behaviour (concentrating, preventing distractions) were associated with higher levels of stress. Active planning

and seeking social support appeared to be more successful in moderating stress. Greenglass (2002) notes that problem-focussed strategies and preventive coping are generally perceived in the occupational stress literature as more successful, because they are associated with lower stress levels, whereas emotion-focussed coping is associated with higher levels of stress. However, the question of directionality arises again: it is possible, for example, that the level of stress experienced by an individual also influences their choice of coping strategy, rather than the reverse.

Employee Stress and Performance

Creating a high performance organization is a popular theme in the training and development field. To survive in these competitive times, companies can't afford anything less. Creating a high performance organization requires understanding what factors influence performance. One of the most significant factors is stress. Historically, stress has been viewed as an inevitable consequence of work life; or at most, a health care issue. Neither view begins to capture just how costly this problem is to employers. Research shows that stress interferes with human intellectual, emotional, and interpersonal functioning. In fact, nearly every popular training and organizational development initiative is directly compromised by the intellectual, emotional, and interpersonal consequences of stress. Initiatives like The Learning Organization, Process Re-engineering, Diversity Training, Collaborative Team Work, and The High Performance Organization are all impacted by the way people are affected by stress.

Studies show that when people are under stress, their thought processes narrow. This narrowing of attention, by definition, prevents divergent thinking, which is the foundation of creativity. Divergent thinking is the ability to see connections between very distantly related ideas and context. It is an important component of "thinking outside the box." When people are stressed, they are able to perceive obvious connections and associations between ideas. When people are in a positive emotional state, their ability to make more distant, novel connections and associations increases. Thus, stress

compromises, at the most fundamental neurological level, one of the foundational skills of creativity and innovation.

Aim of the Study

In order to cater to the caliber of 21st century College students, lecturers have to work more. They are also having long working hours. This contributes to stress related problems which would affect their work performance. The aim of the present study was to gain further understanding of the occupational stress and coping styles of lecturers. The focus of this study was to investigate how occupational stress and the different types of coping styles have contributed to college teachers' performance.

Hypotheses

Three hypotheses were used for this present study. The first hypothesis predicted that occupational stress level would explain the variation in the performance of college teachers. The second hypothesis predicted that the coping styles would explain college teachers' performance. The third hypothesis predicted that gender would affect occupational stress level, coping styles and college teachers' performance.

Method

Participants

A sum of 300 lecturers consisting of 207 males and 93 females were selected as representative samples from a reputed university in Tamilnadu, India. Participants were professors, readers, selection grade lecturers, senior lecturers and lecturers. Using a single sample survey design, all 300 participants completed a background information sheet, Occupational stress index, Coping Skills Inventory and Teachers' Performance Assessment Scale.

Materials

Materials included a questionnaire pack which included background information sheet, Occupational stress index, Coping Skills Inventory and Teachers' Performance Assessment Scale.

Occupational Stress Index (OSI)

Developed by Srivastava, A.K. and Singh, A.P. this index consists of 46 items to be responded on a five point scale (1-strongly disagree, 2-disagree, 3-undecided, 4-agree, 5-strongly agree) with 12 subscales namely Role overload (6 items), role ambiguity (4 items), role conflict (5 items), unreasonable political and group pressure (4 items), responsibility for persons (3 items), under participation (4 items), powerlessness (3 items), poor peer relations (4 items), intrinsic impoverishment (4 items), low status (3 items), strenuous working conditions (4 items), Unpredictability (2 items). Higher the score more would be the occupational stress among the lecturers.

Coping Skills Inventory (CSI)

Developed by Shrunk, C. it consists of 45 items to be responded on a five point scale (1-almost never, 2-rarely, 3-sometimes, 4-quite often, 5-most of the time) with seven dimensions namely Reactivity to stress (7 items), resourcefulness (6 items), ability to relax (6 items), self reliance (7 items), proactive attitude (6 items), adaptability and flexibility (7 items), ability to access

situations (6 items). If the score is high, then the coping skills of the lecturers are high.

Assessing Teachers' Performance Scale

Adapted by Nhundu, T.J. it consists of 30 items to be responded on a five point scale (1-poor, 2-fair, 3-good, 4-very good, 5-exceptional) with four dimensions namely curriculum and instruction (11 items), human relations (11 items), personal development (5 items) and college-community relations (3 items). The higher the score the more would be the work performance of the lecturers.

Procedure

Structured questionnaires were distributed to 300 lecturers in person with a request to give their unbiased, genuine, and realistic responses. This survey data was used as the primary data for this research.

Results and Discussion

To test the first hypothesis, a standard multiple regression analysis was conducted. The result of that analysis is shown in Table 1 below.

Table 1: Multiple Regressions for Performance and Stress Dimensions

	Sum of Squares	df	Mean Square	F	Sig.
Regression	236.721	12	19.727	20.350	.000*
Residual	277.239	286	.969		
Total	513.960	298			

Dimensions of Occupational Stress	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	8.578	1.099		7.803	.000
Role Overload	.150	.114	.070	1.312	.191
Role Ambiguity	.135	.105	.066	1.285	.200
Role Conflict	-.138	.122	-.052	-1.128	.260
Unreasonable group and political pressure	.197	.105	.109	1.869	.063

Responsibility for persons	.346	.103	.183	3.369	.001*
Under participation	-.368	.103	-.191	-3.586	.000*
Powerlessness	-.307	.102	-.165	-3.024	.003*
Poor peer relations	-.091	.109	-.041	-.833	.406
Intrinsic impoverishment	-.138	.130	-.047	-1.056	.292
Low status	-.215	.103	-.094	-2.083	.038**
Strenuous working conditions	.207	.136	.090	1.524	.129
Unprofitability	.114	.103	.070	1.100	.272

R Square = 0.461, * - significant at 0.01 level, ** - significant at 0.05 level, Source: Primary data

The Table 1 reveals the results of multiple regressions between occupational stress and teachers' performance. From the results it is clear that the R square value 0.461 implied that the independent variables have 46.10 percent influence on performance measures. Further, the calculated F-value 20.350 is also confirmed and statistically significant at 0.01 which indicates that there is a significant influence of occupational stress on teachers' performance. Based on the t-value, the variables Responsibility for persons, under participation, Powerlessness and Low status are highly influencing variables to measure the performance of employees. The hypothesis occupational stress level would explain the variation in the performance of college teachers is accepted.

The above finding is in conformity with the results of Abualrub who stated that a curvilinear (U-shaped) relationship existed between job stress and job performance. Goklaney found that low stress groups differed significantly from moderate and higher stress groups in their creativity and performance. Karen Horney stated that high stress and anxiety reduces one's decision making power and performance. Smith and Siwolop inferred that 15 percent of managers suffer from stress that will affect their job performance. Fried, Y. et al found that increase in role conflict and role ambiguity decreased the levels of job performance. Fang et al found that stress, organizational commitment were significant predictors of performance and turnover intention of employees.

Table 2: Multiple Regressions for Performance and Coping Skills

	Sum of Squares	df	Mean Square	F	Sig.
Regression	242.862	7	34.695	36.378	.000*
Residual	278.484	292	.954		
Total	521.347	299			

Dimensions of coping	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.629	.390		9.311	.000
Reactivity to stress	.561	.145	.211	3.864	.000*
Resourcefulness	-.007	.012	-.025	-.574	.567
Ability to relax	.307	.144	.117	2.141	.033**

Self-reliance	.469	.135	.171	3.480	.001*
Proactive attitude	.538	.135	.206	3.990	.000*
Adaptability and flexibility	.347	.146	.128	2.374	.018**
Ability to access situations	.301	.133	.117	2.267	.024**

R Square = 0.466, * - significant at 0.01 level, ** - significant at 0.05 level, Source: Primary data

The Table 2 reveals the results of multiple regressions between coping skills and teachers' performance. From the results it is clear that the R square value 0.466 implied that the independent variables have 46.6 percent influences on performance. Further, the calculated F-value 36.378 is also confirmed and statistically significant at 0.01 which implies that there is a significant influence of coping skills on teachers' performance. Based on the t-value, the variables Reactivity to stress, Ability to relax, Self-reliance, Proactive attitude, Adaptability, flexibility and Ability to access situations are highly influencing variables to measure the performance of employees. The hypothesis that coping styles would explain college teachers' performance is accepted.

The results are in conformity with the research based literature by Barnsley about effective coping strategies and methods used by college teachers to reduce stress and improve their performance levels. Aidong Zhang et al found that teaching performance will be affected by teachers' attitudinal states and coping behaviour. Ron Larchick et al also identified the types of coping behaviours that teachers utilized to minimize the effect of stress on their job performance. Abualrub concluded that the dimension of coping strategy social support enhanced the level of job performance and decreased the level of job stress.

Table 3: t- Test for Gender and occupational Stress

Dimensions of Occupational Stress	Gender	N	Mean	Std. Deviation	t
Role Overload	Male	207	3.8744	.61823	0.460
	Female	93	3.8387	.63057	
Role Ambiguity	Male	207	3.4010	.62984	-0.361
	Female	93	3.4301	.68203	
Role Conflict	Male	207	3.1353	.48378	-1.115
	Female	93	3.2043	.52252	
Unreasonable group and political pressure	Male	207	3.9469	.72546	-0.348
	Female	93	3.9785	.73689	
Responsibility for persons	Male	207	3.8213	.70500	0.170
	Female	93	3.8065	.67980	
Under participation	Male	206	2.2427	.68383	-0.557
	Female	93	2.2903	.68494	
Powerlessness	Male	207	2.2029	.66639	-0.472*
	Female	93	2.2473	.78927	
Poor peer relations	Male	207	2.6715	.58152	-0.080
	Female	93	2.6774	.62834	
Intrinsic impoverishment	Male	207	3.1159	.43632	1.291
	Female	93	3.0430	.48709	

Low status	Male	207	2.7053	.56183	1.893
	Female	93	2.5699	.59706	
Strenuous working conditions	Male	207	3.5459	.58007	0.265
	Female	93	3.5269	.56321	
Unprofitability	Male	207	4.0531	.79567	-.006
	Female	93	4.0538	.82575	

* - Significant at 0.01 level, Source: Primary data

From the Table 3 it was identified that between male and female teachers there was no significant difference found pertaining to the different dimensions of stress except powerlessness. So it is concluded that teachers' opinion for the dimensions Role Overload, Role Ambiguity, Role Conflict, Unreasonable group and Political pressure, Responsibility for persons, Under participation, Poor peer relations, Intrinsic impoverishment, Low status, Strenuous working conditions and profitability did not differ significantly between male and female lecturers.

From the Table 4, based on the t- value it is inferred that self-reliance is the only dimension which is found to differ significantly between male and female lecturers. For all the other dimensions namely Reactivity to stress, Resourcefulness, Ability to relax, Proactive attitude, Adaptability and Flexibility and Ability to access situations there is no significant difference in the opinion of male and female lecturers.

From the Table 5 it was identified that between male and female teachers there was no significant difference found pertaining to the different dimensions of job performance. However for the dimensions curriculum and instruction and college-community relations male teachers are found to have high mean score value and for the other two dimensions: human relations and personal development, female teachers are found to have high mean score value. The hypothesis that gender would affect occupational stress level, coping styles and college teachers' performance is partially accepted.

The findings coincided with the studies of Beena and Poduval who found that gender was also a major factor affecting the stress level. Wang, Z. et al also stated that coping resource in female teachers was significantly higher than in male teachers.

Table 4: t - Test for Gender and Coping Skills

Dimensions of Coping Skills	Gender	N	Mean Deviation	Std.	t
Reactivity to stress	Male	207	2.4203	.49480	-1.198
	Female	93	2.4946	.50268	
Resourcefulness	Male	207	2.7778	3.61213	-0.667
	Female	93	3.1613	6.29232	
Ability to relax	Male	207	2.4155	.50373	-1.260
	Female	93	2.4946	.50268	
Self-reliance	Male	207	2.3043	.47165	-2.057*
	Female	93	2.4301	.49777	
Proactive attitude	Male	207	2.4638	.50951	-0.487
	Female	93	2.4946	.50268	
Adaptability and flexibility	Male	207	2.3382	.48436	-0.982
	Female	93	2.3978	.49211	
Ability to access situations	Male	207	2.4396	.51669	-0.860
	Female	93	2.4946	.50268	

* - Significant at 0.01 level, Source: primary data

Table 5: t- Test for Gender and Performance

Dimensions of Performance	Gender	N	Mean Deviation	Std.	t
Curriculum and Instruction	Male	207	2.3671	.48320	0.204
	Female	93	2.3548	.48106	
Human relations	Male	207	2.3623	.48184	-0.232
	Female	93	2.3763	.48709	
Personal Development	Male	207	2.4638	.49989	-0.322
	Female	93	2.4839	.50245	
College-Community Relations	Male	207	2.5217	.51977	0.412
	Female	93	2.4946	.54421	

* - Significant at 0.01 level, Source: primary data

Conclusion

To conclude, the purpose of this study was to understand the variables that contributed to college teachers' performance. The impact of occupational stress level and coping styles on their work performance was discussed. The study found that there is a significant relationship existing between the occupational stress and performance of University teachers.' The coping dimensions reactivity to stress, ability to relax, self-reliance, proactive attitude, adaptability and flexibility and ability to access situations are highly influencing variable to measure the performance of teachers. Little differences were found in the levels of occupational stress, coping skills and work performance between male and female lecturers. This study, to some extent has created awareness about the problem of college teachers, especially about their occupational stress which has a negative impact over their work performance. It is obvious from the present investigation that teachers' performance is significantly explained by occupational stress and coping skills variables. Therefore the responsibility of society and management lies in reducing occupational stress and improving coping skills.

Key Words: college teachers, occupational stress, coping style, work performance

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