



A Study of the Correlates of Job Stress and Burnout Among Technical Teachers

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ABSTRACT

This study was designed to examine the correlates of job stress and burnout among technical teachers. For this purpose a sample of Ninety technical teachers were selected, with the area of specialization in Electrical, Mechanical, Civil, Computers, Information technology and, Applied Sciences and Humanities, from five government polytechnic colleges of Himachal Pradesh. For the analysis of the data the coefficient of correlation and t-test were performed. The overall findings of the study suggested that prolonged stress lead to burnout. It has also been found that the social support is significantly negatively related with stress. Some of the demographic variables such marital status, gender, experience and designation were correlated with stress among technical teachers. The findings further revealed that maximum job stress was reported by lecturers, but the symptoms of burn out were not reported.

Keywords :

Introduction

Burnout as an individual's negative experience occurring as a result of chronic job stress has become prominent in teaching professional literature since the mid -1970s. There is a general view that teachers' burnout may have a negative impact on the teachers themselves leading to emotional physical illness and on the students as burned out teacher may be relatively impaired in the quality of teaching and commitment, may give less information and less praise as well as interact less with the students. Job stress and burnout serve as impediments to the teacher's research functions in higher education. Burnout is defined as a chronic affective response pattern to stressful work conditions that feature high levels of interpersonal contact. Harrison (1999) concluded that burnout is a "state of physical, emotional, and mental exhaustion caused by long – term involvement in situations that are emotionally demanding". Togia (2005) reported that burnout is a work- related syndrome that most often influences human – service professionals. Although considerable research has studied stress and burnout, further research is warranted to identify new factors that might mediate job stress and burnout link. According to Selye (1936), an important aspect of stress is that a wide variety of dissimilar situations are capable of producing the stress response such as fatigue, effort, pain, fear, success. And this has led to several definitions of stress, each of which highlights different aspects of stress. For instance Peter Tyrer (1983) defined stress as, "it is the reaction of the mind and body to change".

Colangelo (2004) defined teacher stress as an unpleasant feeling that teachers experience as a result of their work. Stress has effects on a person's physical, emotional and psychological well being. Previous researchers have consistently reported time pressure (Barnes, Agago and Combs, 1998), high self expectation (Smith et. al., 1995), and research and publication demands (Blix et. al. 1994) as significant source of stress. Salami (2006) also identified heavy work load, working under pressure, large classes, student's disruptions of lectures, delayed and inadequate salaries as a source of stress among college of education lecturers in Nigeria. Chand and Monga (2007) have also identified internal locus of control, high social support and high job involvement experience less stress and burnout among university teachers.

Empirical evidence has shown that, teachers experiencing more stress were burned out (Ganster and Schanbroeck, 1991, Kokkinos, 2007; Moore, 2007). The manifestation of burnout is a function of stressors engendered at both the environmental organization and personal levels. Kokkinos (2007) found that managing student misbehavior, teacher's appraisal by students, workload, and time constraints were predictors of burnout. According to Talmor, Reiter and Feigin (2005) burnout is a result of on – going stress. Montgomery and Rupp (2005) reported student misbehavior and work demands as the correlates of teacher's stress. The findings of Kim, Lee and Kim (2009) stated work overload, role ambiguity and role conflict, pressure of the teachers' role, inadequate resources, poor working conditions, lack of effective communication, staff conflicts, and students misbehavior.

According to the study conducting by Robert M. Torres, Rebecca G. and Misty D. Lambert (2009) reported gender and experiences as moderators of the job stress among agriculture teachers. Mariya Aftab and Tahira Khatoon (2012) reported that school teachers are less stressed; and demographic variables that are gender, designation and job tenure are related with stress. Shailaja H M and Sunagar G M (2012) suggested gender and marital status as moderator of stress. Fauzia Khurshid, Zahir Uddin Butt and Sufiana K. Malik (2011) revealed that public sector university teachers are more stressed and the stressor is the interpersonal relations with the colleagues whereas private sector teachers are stressed due to their workload. The study further reported that demographic variables have effects on determining the levels of occupational stress. Ravichandran and Rajendran (2007) stated that female teachers are more stressed and demographic variables play a significant role in the perception of various stressors. Osamah Bataineh (2009) stated that marital status, age, and teaching experience were not related to burnout. According to Boran Toker (2011) research assistants are more stressed as compare to professors and associate professors; Safia Basher et. al. (2011) have found university teachers are stressed but burnout is not there. Ahmed Al-sagheer (2012) added that demographic variables were not related to burnout.

As far as the relationship between stress, burnout and social support is concerned Yildirim and Ibrahim (2008) showed a negative relationship between dimensions of burnout and social support. Similarly Osamah Bataineh (2009) stated that family support is related with personal accomplishments. Jose Manue; Otero Lopez, Cristina Castro Bolano and Maria Jose Santiago (2010) referred to the support by colleagues, optimism, hardness, daily hassles and life events stress are valid predictors of stress, burnout and job dissatisfaction. Samuel O. Salami (2011) found that stress, personality and social support were correlated with burnout dimensions. Osamah Bataineh and Ahmed Alsagheer (2012) added support from colleagues as a correlate of personal accomplishment.

Statement of the problem

Research evidences have shown that there is high stress and burnout among teachers. Given that there is a paucity of studies that investigated the relationship between job stress and burnout among the technical teachers, and the moderating role of demographic factors and social support in the relationship, there is need to study how job stress is related to burnout among technical teachers in modern knowledge based society. There are inconsistencies in the earlier findings on the relationship between job stress and burnout. Furthermore, negative consequences of job stress and burnout on the work of technical teachers calls for further research on the job stress- burnout linkage in order to increase our understanding as how to stem the tides of increasing stress and burnout among technical teachers. Keeping in view the above mentioned facts following objectives were framed.

Objectives of the study

- To find the incidence and magnitude of perceived stress and burnout among polytechnic teachers
- To explore the relationship of demographic variables with stress and burnout
- The study the moderating effect of social support on the stress and burnout

Research Design:

the study adopted survey research design that enlisted questionnaire to obtain data from respondents.

Sample

Ninety teachers (assistant professors (14), senior lecturers (19) and Lecturers (57)) were selected from five government polytechnic colleges of Himachal Pradesh. They were selected through purposive sampling. Teachers participated in this study belongs to different area of specializations such as: Electrical, Mechanical, Civil, Computers, Information technology and Applied Sciences and Humanities. The demographic profile of the respondents represented male (66.67%), female (33.33%), married (78.89%), unmarried (21.11%), the average age thirty years with average experience and income of ten years and rupees thirty thousand respectively.

Research Tools:

following instruments were used for data collection:

- (1) Maslach Burnout Inventory (1981)
- (2) Faculty Stress Index (Gmlech, et. al. 1983),
- (3) Social Provisions Scale (Carolyan E. Cutrona, et.al.1987).

The data on demographic characteristics of respondents were collected through demographic questionnaire. The characteristics included in this questionnaire were: gender, marital status, age, designation, experience etc.

Procedure:

for statistical analysis coefficient of correlation and t-test were performed with the help of SPSS.

Analysis and Discussion

Correlation matrix for measures of job stress, social support, burnout and Demographic Variables

Table 1

Variables/ Factors	1	2	3	4	5	6	7	8	9	10
Stress	1									
Burnout	.397**	1								
Social Support	-.152	-.332**	1							
Designation	.239*	.146	-.080	1						
Age	-.208*	-.208*	.232*	-.850**	1					
Marital Status	.146	.299**	-.304**	.361**	-.538**	1				
Family Size	-.132	-.210*	.043	-.374**	.371**	-.213*	1			
Gender	-.019	.015	.077	.241*	-.172	-.077	.012	1		
Experience	-.253*	-.216*	.190	-.890**	.948**	-.507**	.415**	-.175	1	
Salary	-.253*	-.216*	.190	.948**	-.507**	.415**	-.890**	-.175	.857**	1

** Correlation is significant at 0.01 level of significance; * Correlation is significant at 0.05 level of significance

Table 1 above presents the correlation matrix for the measures of stress, burnout, social support and demographical variables. It is evident from the table that job stress is significantly related with burnout ($r = 0.397$, $p < 0.01$). The relation signifies that with the increase in job stress, burnout will also increase. The finding coincides with the work of Moore (2001), Chand and Monga (2007) that referred to the positive relation between job stress and burnout. It can also be observed from the table that significantly negative relationship exist between social support and burnout ($r = -0.332$, $p < 0.01$). The findings of Bonfiglio (2005), Eric G Lambert, Irshad Altheimer, Nancy L. Hogan (2010) confirmed the result. Age was negatively correlated with stress and burnout ($r = -0.208$, $r = -0.208$, $p < 0.05$) respectively and positively related with social support ($r = 0.232$, $p < 0.05$). Salami 2006; Daniel K. Mroczek and David M. Almeida, 2004; Charles, Reynolds, and Gatz, 2001; Mroczek, 2001 have found the similar results. Marital Status has shown a significant positive correlation with burnout ($r = 0.299$, $p < 0.01$) and negative correlation with Social Support ($r = -0.304$, $p < 0.01$). Bonfiglio, 2005; Cheuk, Wong and Rose, 1994; Wong and Cheuk 2005 confirmed that social support can buffer the negative effects of stress with the similar findings. The other demographic variables such as family size ($r = -0.210$, $p < 0.05$), experience ($r = -0.216$, $p < 0.05$) and salary ($r = -0.216$, $p < 0.05$) also have significant negative correlation with burnout. Further experience ($r = -0.253$, $p < 0.05$) and salary ($r = -0.253$, $p < 0.05$) have shown a significant negative correlation with stress too. As far as the relationship between other demographic variables and stress is concerned, designation is related positively ($r = .239$, $p < 0.05$), while age ($r = -.208$, $p < 0.05$), experience ($r = -.2533$, $p < 0.05$) and salary ($r = -.253$, $p < 0.05$) were negatively related. The negative relationship of experience, age and salary with stress revealed that as the experience, age and salary of the individual go on higher side the individuals experience less stress. It can be

due to the fact that increased experience develops the person job fit; age brings the adaptability to the different demanding situations and high salary leads towards higher job satisfaction. Social support too was not significantly correlated with gender, experience and salary. The results are supported by Mariya Aftab and Tahira Khatoon (2012), and Shailaja H M and Sunagar G M (2012) who reported that demographic variables that are gender, marital status, designation and job tenure are related with stress.

Job stress, gender and marital status

Table 2

Variables	N	Stress Mean	Standard Deviation	t- value
Married	71	65.00	2.728	2.842*
Unmarried	19	60.65	6.501	
Male	60	58.63	7.818	2.912*
Female	30	63.20	4.992	

*P< 0.05

The comparison of the variation of mean values of marital status with job stress exhibited in Table 2 revealed that married teachers ($t = 2.842$, $*P < 0.05$) are more stressed. It may be due to the dual responsibility at home as well as office, caused difficulty in managing their time. The studies conducted by Fauzia, Zahir and Sufiana (2011), H. M. Shailaja and G. M. Sunagar (2012), found that demographic variables including marital status have effects on determining the levels of occupational stress. The application of t-test has made the variation of job stress with gender crystal clear. It revealed that male and female technical teachers ($t = 2.912$, $*P < 0.05$) differ in their levels of stress. According to the data female faculty members experience more stress. This may be due to the fact that high pressure has been exerted on females to maintain balance between job and family. The other reason could be role overload. This finding is in accordance with the studies of Shailaja and G M, Sunagar 2012; Ravichandran and Rajendran, 2007; Flowers 2001; Jick and Mitz 1995; Nelson and Hitt 1992; Blix, Cruise, Mitchel, 1994; Hagedorn 1996; Shapely et. al., 1996 who reported that female teachers are more stressed.

Job stress and designation

Table 3

Variables	N	Stress Mean	Standard Deviation	t- value
Lecturers	57	63.42	7.507	4.258*
Assistant Professors	14	54.21	6.015	
Lecturers	57	63.42	7.507	2.020*
Sr. Lecturers	19	59.42	7.373	
Sr. Lecturers	19	59.42	7.373	2.162*
Assistant Professors	14	54.21	6.015	

*P<0.05

Table 3 exhibited the variation among the mean values of designations (occupational status) and stress. It showed that maximum stress was reported by lecturer ($t = 4.258$, $*P < 0.05$) and minimum by assistant professors ($t = 2.162$, $*P < 0.05$). The reason for the same can be that stress scores and designation move in opposite direction i.e. higher the designation lower the stress. It may be because the newly appointed teachers find difficulties in coping up with pupil behavior, in handling classes, heavy workload, attitude and behavior of other teachers, lack of support from senior faculty, lack of command over the subject to be taught, number of subjects to be taught, time pressure, pupil's non acceptance of teacher's authority, lack of recognition for good teaching, lack of participation in decision making, research and publication demands and high self-expectation. The results were supported by the study of Boran Toker (2011) which reported that academic titles (designations) are associated with different levels of burnout; and the relationship move in opposite direction.

Job stress and experience

Table 4(a)

Experience in years	N	Stress Mean	Standard Deviation	t-value
Less than 10 years	56	64.36	7.662	5.539*
Above 21 years	15	52.60	5.667	

*P<0.05

Table 4(b)

Experience in years	N	Stress Mean	Standard Deviation	t-value
Less than 10 years	56	64.36	7.662	2.183*
11 to 21 years	19	59.58	9.805	

*P<0.05

Table 4(c)

Experience in years	N	Stress Mean	Standard Deviation	t-value
11 to 21 years	19	59.58	9.805	2.448*
Above 21 years	15	52.60	5.667	

*P<0.05

The mean differences between experience and stress shown in table 4 above revealed maximum stress among teachers with experience less than 10 years ($t = 5.539$, $*P < 0.05$) and minimum among teachers with experience more than 21 years ($t = 2.448$, $*P < 0.05$). Hence, stress and experience moved in opposite direction. The results have shown the inconsistency with findings by Mariya Aftab and Tahira Khatoon (2012) which reported that less experienced teachers are less stressed as compare to their counterparts. Our findings are supported by Fauzia Khurshid, Zahir Uddin Butt and Sufiana K. Malik (2011) who found that demographic variables including experience have effects on determining the levels of job stress. Further Ravichandran and Rajendran (2007) reported that personal variables such as experience play a significant role in the perception of various sources of stress related with the teaching profession.

1. Job stress, burnout and age

Table 5(a)

Age	N	Stress Mean	Standard Deviation	t-value
Less than 30 years	34	62.53	8.891	1.913
Above 40 years	27	58.56	6.858	

*P<0.05

Table 5(b)

Age	N	Stress Mean	Standard Deviation	t-value
31 to 41 years	29	60.14	10.197	0.676
Above 40 years	27	58.56	6.858	

*P<0.05

Table 5(c)

Age	N	Stress Mean	Standard Deviation	t-value
Less than 30 years	34	62.53	8.891	0.995
31 to 41 years	29	60.14	10.197	

*P<0.05

The data from the above table 5 (a), (b), (c) reported no significant relationship between job stress and different age groups. Thus, it can be said that age of the respondents does not influence stress among faculty members in technical institutions. Although the relationship is not significant, comparison of mean differences indicated that stress (62.53) is high among the respondents having age less than 30 years than the age group of 31 to 40 years (60.14) and age group above

40 years (58.56). The findings are supported by the studies of Ralf Schwarzer and Suhair Hallum (2008) which suggested that youngest group of teachers felt slightly less successful than their counterpart therefore they are more stressed whereas a study by Osamah Bataineh and Ahmed Alsagheer (2012) found that demographic variables were not significantly related to burnout.

2. Job stress and income

Table 6 (a)

Monthly income	N	Stress Mean	Standard Deviation	t-value
Less than 25 thousand	38	62.58	9.143	1.127
Above 45 thousand	16	59.56	8.571	

Table 6 (b)

Monthly income	N	Stress Mean	Standard Deviation	t-value
Less than 25 thousand	38	62.58	9.143	1.797
25-45 thousand	36	58.89	8.488	

Table 6 (c)

Monthly income	N	Stress Mean	Standard Deviation	t-value
25-45 thousand	36	58.89	8.488	0.263
Above 45 thousand	16	59.56	8.571	

It is clear from the table 6 (a), (b), (c) above that the variation in the mean values between monthly income and stress levels have no significant relationship. Hence, it can be said that income is not associated with the stress among teachers. The results are supported by a study of Osamah Bataineh and Ahmed Alsagheer (2012) who found that demographic variables such as income were not significantly related to burnout.

7 Stress, burnout and social support Table-7

	Social Support Low (N=62)		Social Support High (N=28)		t-value
	Mean	Standard Deviation	Mean	Standard Deviation	
Stress	62.65	7.7536	55.96	9.931	3.516*
Burnout	56.37	10.576	47.71	8.110	3.846*

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*P<0.05

The mean variation of social support, job stress and burnout shown in table 7 above inferred that respondents with high social support experience less stress ($t= 3.516$, $p<0.05$) as well as burnout ($t=3.846$, $p<0.05$) than their counterpart. The results are in accordance with earlier research by Salami O. Salami (2011); Rachel Talmor, Shunit Reiter and Neomi Feigin (2005); Chand and Monga (2006); Russell, Altmaier and Velzen (1987); Yildirim and Ibrahim (2008) which demonstrated social support as a measure to combat burnout.

8 Stress and burnout among subjects with Family size and job stress

Table 8

	Nuclear Family (N=45)		Joint Family (N=45)		t-value
	Mean	Standard Deviation	Mean	Standard Deviation	
Stress	61.67	8.798	57.49	10.437	2.053*
Burnout	56.27	11.879	51.09	8.570	2.371*

*P<0.05

The data from the table 8 above indicated significant differences in mean values of family size with job stress and burnout. Comparison indicated that stress and burnout is high among the respondents living in nuclear family ($t=2.053$, $p<0.05$), ($t=2.371$, $p<0.05$) respectively. Vashistha and Mishra (1998) observed that social support from the family could minimize the stress and burnout among the employee. Osamah Bataineh (2009) stated that family support is related with personal accomplishments too.

Implications

The understanding of correlation among job stress, burnout, social support and demographic variables will sensitize the stakeholders of teaching profession, leading towards the better understanding and performance of role expectations accordingly. The knowledge of the inter-influences will help the human resource specialists and career counselors to forecast burnout, stress as well as factors related to their early manifestation which will make its effective management possible. The findings can further be utilized to design interventions for the improvement and development of class room management skills as well as interpersonal skills. The assessment of the personality traits of teachers in general and technical teachers in particular will lead to establish organizational well being by making it possible for the education system to develop person-training-job fit. As a whole the study will help in managing stress and burnout in teaching profession and grow effectively to create a brand in education.