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Personal and Job Related Predictors of Teacher Stress and Job Performance among School Teachers

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Abstract

The present study was conducted to find out role of personal and job related variables in teacher stress and job performance of school teachers. Furthermore, levels and sources of stress and their relationship with job performance among teachers were also explored. The measures used in this study were indigenously developed i.e., Teacher Stress Inventory (TSI-Urdu), Teachers Job Performance Scale and personal and job related Information sheet. Two independent samples were selected from Government and Private Schools of Islamabad (Pakistan). Sample I was comprised of 400 teachers (men and women) from Primary and secondary schools. For the evaluation of teachers' job performance another sample of 1200 students from the classes of teachers of sample I was selected. Three students were randomly selected from each teacher's class. The students were requested to evaluate their respective teachers' job performance. The findings revealed that negative significant relationship exists between teachers stress and job performance. The step-wise regression analysis revealed school system, gender, job experience, number of family members, and number of students as significant predictors of teacher stress and gender, school system, family members, job experience and age as significant predictors of teachers' job performance.

Keywords: Teacher stress, Job performance, Predictors of stress and performance, Sources of stress.

1. Introduction and Literature Review

The prevalence of job stress and the enthusiastic pursuit of better performance in a wide range of professions have attracted much research attention. Research into job stress has grown steadily over the last few decades. Much has been said about stress and studies

have indicated teaching to be a very stressful occupation (Borg, 1990; Borg & Falzon, 1993; Fontana & Abouserie, 1993; Jing, 2008). Clearly the major concern with teacher stress in schools is that a prolonged experience of stress can precipitate both mental and physical ill health (Chance, 1992). While there is much evidence that stress at work appears to be implicated in the ill health of the many teachers, and subsequently, teacher stress is also a problem in schools because of its effects on job performance (i.e., Jamal, 1984; Dickman & Emner, 1992). In many studies on work stress, stress is defined as the discrepancy between environmental and situational factors in their work and employees' capability and resources to handle them (Lazarus and Folkman, 1984; Edworthy, 2000).

According to Teacher Stress Model presented by Fimian (1984), the occupational stress experienced by teachers is actually a multiple factor construct, and these factors are significantly related to one another. Moreover, the teacher stress is related to a number of work, job, and organizational variables in terms of both predicted directions and magnitudes. Teacher Stress Model explains one array of events that act as sources of stress and one as manifestations of stress.

Teacher stress is related more to environmental events, and the teacher's perception of these events, than it is to personal or professional variables such as teacher gender, age education level, number of students, and numbers of years teaching. Fimian (1982) also explained that frequency with which stressful incidents occur and the strength of their occurrence varies from teacher to teacher. A multitude of factors including situational demands, appraisal to that situation etc., cause the stress among teachers.

The experience of work stress can alter the way the person feels, thinks, and behaves, and can also produced changes in their psychological, physiological and behavioral functions. Many of these changes simply represent, in themselves, a modest dysfunction and possibly some associated discomfort. For several years it was hypothesized that stress serves to arouse a person and increase attention to the job, thus improving performance. But this trend is now changing, because beyond that optimum level of stress, performance falls off (Ivancevich & Matteson, 1980). Performance refers to either employees' discrete activities and behaviors or their aggregated values to the organizations (Kocak, 2006). Studies show that performance whether measured by supervisor ratings, organizational perceptions of effectiveness, or job performance on job-related examinations have repeatedly been found to decrease with increasing levels of stress (Jamal, 1984; Motowidlo, Pakard, & Manning, 1986). In special situations this may not be true, but in general low performance can be anticipated where stress is high.

2. Hypotheses

From the literature, there appear to be several effects of stress, which may be of more direct concern to organizations. The most cited appear to be: reduced availability for work involving high turnover, absenteeism, and poor time keeping, impaired work performance and productivity etc. (Jones et al., 1988). We proposed in present study:

> *Hypothesis 1: Teacher stress is negatively related to Job performance among Pakistani school teachers.*

Although teacher stress has become a popular topic of research, demographic and occupation related factors have not received sufficient systematic attention (Iwasaki, Mackay, & Ristock, 2004; Liu, Spector, & Jex, 2005). The trends in occupational stress research are more concerned about role of demographic and job related factors in

determining levels of stress (Duyiliemi, 1992; Liu, Spector, & Shi. 2008), and as negative outcomes poor job performance, absenteeism, job dissatisfaction are being considered more affluently predicted by levels of stress and demographic variables (Leithwood, Jantzi, & Steinberg, as cited in Ozdemir, 2007; Jing, 2008). As researchers have identified several demographic variables that affect stress levels among faculty members e.g., Gender and age. In general, female teachers have reported higher levels of stress than their male counterparts (Blackburn & Bently; Blix et al., Sax et al.; Smith et al., Thompson & Dey, as cited in Brewer & MecMahan, 2004). Another important demographic variable is age of teachers. Duyilemi (1992) found that age of teacher is negatively correlated with their level of occupational stress. Considering the relationship of stress and performance, we assume that the factors predicting stress will also predict performance of school teachers. Thus we hypothesis:

> *Hypothesis 2: There are certain personal and job related variables predicting significantly both teacher stress and job performance.*

The studies discussed above are from western literature. Very few studies in this area are conducted in non western settings. In developing country like Pakistan, teaching is considered as one of the stressful professions due to a number of the reasons including their pay structure, general status, working conditions, workload, school environment (Naheed, Rehman, & Shah, 2000). The social status of teacher is not very prestigious. They have little scope for achieving recognition and professional advancement. The school system is also not uniform all over the country. Despite of all these factors, the researchers have not given much attention to identify personal or job related predictors of stress in teachers. Hanif and Pervez (2003) compared primary and secondary women school teachers, some other studies have been conducted to find out the job satisfaction and its relationship with occupational stress (i.e., Imam, 1990; Dua, 1999). Keeping in view the significance of individual and situational factors, the present study is designed to find out the role of some selected demographic and job related factors i.e., gender, age, marital status, school system, number of students etc. in school teachers of Islamabad (Pakistan).

3. Research Methodology

3.1 Participants

Two independent samples were used in this study. A sample of 400 teachers from the randomly selected Government (n= 200) and Private (n=200) schools of Islamabad (Pakistan). The sample was comprised of men (n= 187) and women (n=213) teachers from Primary (n= 200) and secondary (n=200) schools. The criteria for the selection of teachers were minimum job experience of one year. Among the sample 41% teachers were married and 59% unmarried. The mean age of the teachers was 37 and minimum job experience was one year. Sample II of the present research was comprised of 1200 students of sample I. They were randomly selected from the classes. Three students were selected to evaluate each teacher.

3.2 Instruments

3.21. Teacher Stress Inventory (TSI-Urdu): Teacher Stress Inventory (TSI-Urdu) translated and adapted by Hanif & Pervez (2003), originally developed by Fimian (1984), was comprised of 49 items pertaining to 10 subscales of teacher stress. The five subscales was included sources of stress i.e., time management, work-related stressors,

professional distress, discipline and motivation and professional investment, and five subscales were comprised of manifestations of stress i.e., emotional manifestations, fatigue manifestations, cardiovascular manifestations, gastronomical manifestations and behavioral manifestations. The responses of the subjects were recorded on a five point rating scale (“never , “sometimes ”, “often ”, “mostly and “always”), scores assigned to these categories ranged from 1 to 5. The scores of the subjects were determined by the means of the total and subscales of TSI-Urdu. The cut off scores, determined on the basis of percentile ranks, were 2.39 and below as low levels of stress, 2.87 and above as high levels of stress and scores ranging between 2.40 to 2.86 as moderate levels of stress. The alpha coefficient computed for the present data on TSI-Urdu were .94 for total.

3.2.2. Teachers Job Performance Scale (TJPS): This scale is an indigenously developed scale developed by Hanif and Pervez (2004), comprised of 25 items with five point rating scale, pertaining to four empirically determined categories of teacher’s job performance. These categories were Teaching Skills, Management Skills, Discipline and Regularity, and Interpersonal Skills. Student rating version of TJPS was used for present study. The response categories were “never “sometimes”, “often, “mostly and “always”. The scores assigned to these categories ranged from 1 to 5. The high scores on total and subscales show excellent job performance and low scores show poor job performance.

3.2.3. Personal and Job related Information Sheet: An information sheet was developed for teachers in order to seek personal information’s like gender, age, job experience, monthly income, number of students, number of family members, school system i.e., Government vs. Private, teaching hours per week, status (regular or contractual) of teachers, family system i.e., Joint vs. Nuclear. The variables included in this sheet were derived through existing literature and on the basis of interviews with school teachers. Se

3.3 Procedure

In the first step, schools were randomly selected from the lists obtained from Federal Directorate of Schools, 10 primary and 10 secondary schools were selected. the teachers were approached at their schools. Informed consent from teachers and their head teachers were taken. They were given questionnaires in individual settings. They were requested to rate the statements honestly. Some personal, demographic and job related information were also collected on a separate sheet. In next step, three students from the classes of above mentioned teachers were randomly selected and they were asked to evaluate their teaching performance on Teacher Job Performance Scale. The mean scores of three students were used as Job Performance scores.

4. Results

The findings in table 1 show descriptive analysis i.e., means and standard deviations for TSI-Urdu and TJPS for total and subscales of study. The mean scores depict that teachers show highest level of stress at work related stressors.

Table 1: Means and Standard Deviations on TSI-Urdu, and TJPS and subscales

Variables	M	SD
Teacher Stress (Total)	2.63	1.39
Time Management	3.04	1.65
Work-Related Stressors	3.31	1.73
Professional Distress	3.21	1.81
Discipline and Motivation	3.02	1.75
Professional Investment	2.42	1.79
Emotional Manifestations	2.22	1.74
Fatigue Manifestations	2.43	1.79
Cardiovascular Manifestations	2.09	1.98
Gastronomical Manifestations	1.81	1.83
Behavioral Manifestation	2.03	1.95
Teacher Job Performance (total)	92.31	2.57
Teaching skills	21.95	2.56
Management skills	16.30	1.55
Discipline and regularity	29.28	3.29
Interpersonal skills	25.74	3.11

Table-2 presents the correlation of TJPS and its subscales with TSI-Urdu. The findings show significant relationship of level of stress and teachers' job performance

Table 2: Correlation of TSI-Urdu with Teacher Job performance scale

Scales	correlations
Teacher Job Performance (total)	-.78***
Teaching skills	-.64***
Management skills	-.59***
Discipline and regularity	-.34**
Interpersonal skills	-.58***

Table 3 presents the stepwise multiple regression analysis to demonstrate significant predictors of teacher stress. The first model found a significant impact of school system on teacher stress *(β = .473, t = 10.662, p <, .001)*. This model accounted for 22.7% of variance (R^2 = .224, F =(1, 394), 113.685, p <.001). The second model depicted interaction of school system and gender as significant predictors. This model accounted for the variance37.3% of variance. The final model5 depicted the interaction of five variables i.e., school system, gender, job experience, number of family members, and number of students accounted for the total variance 44.9% in teacher stress.

Table 3: Step-Wise Multiple Regression analysis for predictors on teacher Stress

Predictors		*B*	SE	R^2	*β*	ΔR^2	F
Step I	Constant	183.293	7.358	.224	.473	.224	113.685***
	School system	49.616	4.653				
Step II	Constant	241.843	8.976	.373	.448	.149	116.857***
	School system	46.946	4.197		.387		
	Gender	40.677	4.209				
Step III	Constant	227.755	9.015	.419	.451	.046	94.170***
	School system	47.334	4.047		.383		
	Gender	40.288	4.058		.214		
	Job experience	2.051	.369				
Step IV	Constant	239.634	9.481	.437	.423	.018	75.961***
	School system	44.328	4.074		.374		
	Gender	39.279	4.008		.241		
	Job experience	2.302	.370		.142		
	Number of family members	2.884	.805				
Step V	Constant	213.009	13.221	.449	.403	.012	63.525***
	School system	42.301	4.099		.350		
	Gender	36.786	4.066		.221		
	Job experience	2.119	.372		.139		
	Number of family members	2.817	.798		.114		
	Number of students	.234	.082				

***$p < .001$

Table 4 revealed predictors of teacher job performance. The final model 5 showed gender, school system, and number of family members, job experience, and age as significant predictors of teachers' job performance. This model depicted total 31.3% variance in dependant variable.

Table 4: Step-Wise Multiple Regression analysis for predictors on teacher job performance

Predictors		**B**	**SE**	**R^2**	***β***	**ΔR^2**	**F**
Step I	Constant	118.777	5.308	.152	.390	.152	70.694***
	Gender	27.608	3.284				
Step II	Constant	154.849	6.451	.281	.366	.133	78.371***
	Gender	25.904	3.025		.365		
	School system	25.794	3.017				
Step III	Constant	162.086	6.992	.292	.359	.012	55.224***
	Gender	25.392	3.010		.342		
	School system	24.169	3.061		.112		
	Number of family members	1.534	.594				
Step IV	Constant	159.230	7.094	.298	.356	.008	42.875***
	Gender	25.203	2.999		.340		
	School system	24.026	3.048		.130		
	Number of family members	1.774	.602				
	Job experience	.580	.277		.090		
Step V	Constant	188.967	15.482	.304	.360	.008	35.552***
	Gender	25.455	2.987		.340		
	School system	23.965	3.034		.115		
	Number of family members	1.571	.607				
	Job experience	1.555	.529		.241		
	Age	1.026	.475		.179		

5. Conclusion and Discussion

The findings showed that teacher stress has negative significant correlation with job performance. These findings for present data are in line with existing literature. The negative relationship of stress and job performance has already been well established in previous researches (e.g., Ivancivich and Matteson, 1980; Chance, 1992; Dickman & Emener, 1992). The researches show that the teacher stress may have psychological and social effects and these effects may be expressed in a variety of different ways, poor performance is one result of this complex issue (Stansfeld et al., 1999; Friedman, 2000).

In the present research, the main objective was to find out role of some personal and job related variables. The literature review has revealed that there are certain individual variables that may contribute to stress and job performance (Antoniou, Polychroni, & Walters, 2000). The variables were selected on the bases of existing literature (Blackburn & Bently; Blix et al., Sax et al.; Smith et al., Thompson & Dey, as cited in Brewer & MecMahan, 2004) and some indigenous variables were derived through interviews with school teachers. Step-wise multiple regression analysis was performed to see which personal and job related variables predicted levels of stress and job performance among teachers. In this regard, factors i.e., gender, school system, age, job experience, monthly income, number of students, number of family members, marital status, self education, professional training, job status, school type were selected. The analysis revealed five most significant predictor o f teacher stress i.e., School system, Gender, Job experience, Number of family members, Number of students. The model 5 of analysis depicted the interaction of five variables i.e., school system, gender, job experience, number of family members, and number of students accounted for the total variance 44.9% in teacher stress. The variance accounted for only school system is 22.4 % and for gender 14.2%.

Five most significant predictors of teachers' job performance are gender, school system, family members, job experience and age. The variance accounted for gender 15.2%, and school system 13.2%. And other variables show less variance. It shows the gender and school system predict job performance of teachers but the variance in level of performance is not very high. The total variance depicted in Model 5 is 31.3%.

Some other variables were also considered important, but these were not turned out as significant predictors of both stress and job performance and were excluded.

Though present findings have significant contribution in the sense that it has explored the predictor variables regarding personal and job related characteristics, as some previous researchers have identified that these factors play a significant role in determining stress and job performance among teachers (Ivancevich & Matteson, 1980 ; Blackburn & Bently; Blix et al., Sax et al.; Smith et al., Thompson & Dey, as cited in Brewer & MecMahan, 2004) but these studies were conducted in eastern settings, moreover, they focused these variables separately, none of the study has tried to explore multiple effects of these factors. Another contribution of present study is to explore some common predictors of stress and job performance of school teachers, this finding validate the negative relationship of stress and performance, as common factors exists in increasing level of stress and decreasing level of performance of school teachers. At the same time, results from this study also indicate that factors other than these selected demographic and job related may explain a large amount of the variance in school teacher's levels of

stress and job performance. Because findings do not explain a large amount of variance in teachers' levels of stress and performance, other variables should be examined for their effects on stress and job performance. The study also has some drawbacks especially in terms of sample that was selected only from the schools of Islamabad, although, Islamabad being the capital of Pakistan, is a metropolitan city and represent whole country population but on the other hand the reality exist that the teachers of Islamabad may not be facing some conditions that teachers of small towns and cities are facing. Another important point is the evaluation of teachers' job performance by the ratings of only students, though it control the self reporting measurement bias, further studies may also be conducted using multiple sources of job performance evaluation i.e., school principals' ratings for external validation of the students' ratings.

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