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Sources of stress in academe: A study on the universities of Punjab

Aqsa Akbar and Muhammad Akram Naseem

Lahore Business School, The University of Lahore, Pakistan.

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ABSTRACT

Teaching is found to be a stressful occupation and educators around the globe are experiencing hi- levels of stress (Dinham, & Scott, 1998; Gmelch, 1993; Kyriacou, 2001). In 2000, Wiley reported that the consequences of job stress can take the form of behavioral characteristics like Disturbing the interpersonal relationships or decrease in the work performance. The study is conducted to find the sources of stress at Higher Education in Punjab. For the Purpose, 289 full-time faculty members were selected to identify the stressors generating high stress from 12 Public and Private Universities of Punjab. The study revealed that the sources of stress vary significantly with respect to Gender. Also, it checks the association & significant difference of faculty job stress with respect to background variables like Age, Designation, salary etc. Finally an analysis on the stress coping strategies was also carried out on the basis of Gender.

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Introduction

Job stress is increasingly becoming a recognized occupational hazard in the today's world. Previous researchers have worked to explore the causes and consequences of the job strain and called it as a costly problem (Sauter & Murphy, 1995). Immense amount of literature is available on the job stress regarding the corporate world employees. However, teaching profession is normally considered as a low stress job as compared to other professions. Earlier studies in South Africa by Buwalda and Kok (1991) reported that large proportions (84.2 and 63.7 per cent) of educators viewed teaching as a stressful occupation.

With the growing evidence, universities no longer provide low stress environment that they once used to did. Researches conducted on the occupational stress of the educators and their possible factors found that Stress within the teaching is considerable and have far-reaching consequences for the entire education system. (Wiggins, T, 1983, Milstein & Farkas, 1988). Similarly, researches conducted in many countries reported growing academic stress as a major concern for the policy makers. These researches include: blix, Cruise and Mitchell (1994), Gmelch, Wilke and Loverich (1986), Hogan, Carlson and dua (2002), Abouserie (1996), Bradly and eachus (1995), Daniels and Guppy (1992), Kinman(2001), Winefield, Gillespie, Stough, Dua, and Hapuarachchi (2002), Boyd and wylie (1994) and Taris, Scherus, and Van Iersal-Van silfhout (2001). Many other researchers are of the point of view that considerable amount of work-related stress exists in the occupation such as teaching (Outcalt, 2002; Hollingsworth, 1990; Walington. & Partridge, 1998).

This research will be regarded as worthy of investigation for many reasons. First, within Punjab, there have been relatively few studies related to job stress in academics. Related studies were conducted on the level & sources of stress in women schools teachers (Pervez & Rubina, 2003), the stress level of teaching doctors (Khuwaja., et al 2003), yet the stress studies on the faculty at higher education still an unoccupied area in

Punjab, Pakistan. The study will also help the policy makers of the Universities to know about the real problems resulting in the form of negative job stress and to better formulate the stress coping policies.

Literature Review:

Stress is the physiological response to actions or events that place excessive psychological or physical demands on a person. It is a condition or feeling experienced when a person perceives that demands exceed his ability or resources to handle them.

According to Lazarus' (1966), one of the profound researchers to work on stress related issues, stress is what occurs when the demands of the environment, in the person's eyes, clearly exceed the resources of that person to handle it. One of the biggest resource is the ability of the person to construct the situation. Lazarus's concept is also advocated by many other researchers i.e. McGrath (1970) and French, Rodgers and Cobb (1974).

Stress, according to House and Wells (1978) is perceived when the demands of the situation are assessed as exceeding the individual's typical modes of behavior. According to person-environment fit model of job stress (French, Caplan, & Van Harrison, 1982), job stress can be a consequence of two kinds of mismatch: a mismatch between the requirements of the job and the ability of the worker to meet those requirements and a mismatch between the worker's expectation of what the job involves and what it actually involves.

The stress at workplace adversely affects the performance, productivity, job satisfaction, health and general quality of professional life and people in general (Lazarus & Folkman, 1984). The acceptance of stress as a serious topic for medical concern in the United States has reached to the point that many medical practitioners believe that stress is one of the primary causes of early death (North western National Life Insurance company 1991).

The research related to faculty stress became an important issue for the academic administrators and faculty advocates in higher Education. (Blackburn et al., 1986; Smith and Witt, 1993;

Gmelch, Lovrich, and Wilke, 1984; Bowen and Schuster, 1986; Ladd and Lipset, 1975). Faculty experiencing stress feel job dissatisfaction and dissatisfied faculty members can transfer their emotional dissonance to other faculty members as well, causing their morale low towards the job (Mitchell, 1980; Westman, & Etzion, 1999).

The unpleasant environmental demands or stimuli that causes stress are referred to as stressors. Anisman and Merali (1999) stated that stressors are the situations or events that are perceived as being adverse because it generates stress reactions. Many researchers have been conducted to identify these stressors. The most defined research was conducted by Gmelch (1984). Out of 184 Phd Degree awarded universities of United states, a sample of 1920 faculty were taken. The findings indicated that 60 percent of the total stress in the faculty life came from their work. The participating faculty responded to a Faculty Stress Index consisting of a list of 45 stressors as typical to academic work. The 10 most troublesome stressors were: (1) imposing excessively high self- expectations, (2) securing financial support for research, (3) having insufficient time to keep abreast with current events in one's field, (4) low pay for work done, (5) striving for publication of one's research, (6) feeling that one is continually overloaded with work, (7) job demands interfering with personal activities, (8) lack of progress in career, (9) interruptions from telephone and drop-in visitors, and (10) meetings. Through Principle component Varimax solution, Gmelch grouped the stressors into 5 factors; reward and recognition, time constraints, departmental influence, professional identity, and student interaction.

The Gmelch's instrument was also applied to get the sources of stress in academe in Israel by Arye Perlberg and Giora Keinan (1986). The research indicated the presence of five distinct factors through the Varimax solution factor analysis; conflicts with the academic system, overload of administrative and public duties, academic overload and time constraints, teaching functions, working condition. As compared to faculty in American universities, Israelis pointed the most troublesome stressor was having insufficient time to keep abreast with the current development.

A research by Cox, Boor, Cox & Harrison, 1988, identified changes in education as a major source of stress for educators in Britain. Ngidi and Sibaya (2002) and Olivier and Venter (2003) also found educational changes and administrative problems as a significant source for job stress among educators in Kwa Zulu-Natal and the Eastern Cape. A study on South African educators found high job stressors related to time pressure, educational changes, administrative problems, educational system, professional distress and pupil misbehavior among educators (Peltzer, Karl, Shisana, Olive, Zuma, Khangelani, Wyk, V.B, & Zungu-Dirwayi, Nompumelelo 2008).

Kyriacuo (2001) identified disruptive behavior of students , dealing with parents & conflicts with colleagues as the major causes of teacher's stress. Different researches have indicated that the major stress sources are time pressures (Gmelch et al., 1986; Olsen, 1993; Smith et al., 1995), high self expectations (Gmelch et al., 1986; Smith et al., 1995), and research and publication demands (Blix et al., 1994).

The research conducted on occupational stress in Australian university staff found five major antecedents of stress; insufficient funding and resources, work overload, poor management practices, job insecurity, and insufficient

recognition and reward (Winefield, A.H., Gillespie, N., Stough, C., Dua,J., & Hapuarachchi, J. 2003).

Many stress studies found an association within the stress and designation. One study found out that women professors experience more stress because of time related work demands and student expectations of access (Jeffrey W. Totten, McNeese State University, Barbara A. Schuldt, Southeastern Louisiana University 2009)

A study by (Alexander , Adams & Martray, 1983) reports that younger age groups experience higher degrees of stress as compared to older peers. Research by Tung(1980) reported that women educational administrators experienced relatively less stress than men in four areas of professional work; task based, role based, boundary spanning and conflict mediating.

In order to cope with the stress related factors, first there is a need to understand the personal and environmental context in which it occurs. Coping has been defined as the cognitive and behavioural efforts to master, reduce or tolerate the demands that are created as a consequence of a stressful transaction (Lazarus & Launier, 1978; Folkman & Lazarus, 1980). According to Lazarus & folkman, 1984, coping stress is considered as stabilizing factor that can help individuals to maintain psycho-social adaptation during stressful situations.

Research done by Gmelch (1988) revealed seven kinds of coping strategies that includes:

- Social support such as affiliation from the colleagues; having lunches, talking with trusted friend etc
- Physical activities such as sports, swimming, joggings etc
- Intellectual capital such as attending professional conferences, reading broadly
- Entertainment such as watching movies, mini- vacations etc
- Personal interests such as music, gardening, cooking etc
- Self-management Techniques such as time management, working efficiently etc
- Supportive Attitudes such as being optimistic, reciting religious scriptures etc

Objective of the Study:

The purpose of the study is five-folded; First, to find out the overall top ten stressors experienced by the faculty members as well as the top five stressors with respect to gender . Second, the study focuses that whether any association exists between the Faculty job stress and demographic variables. Third, to check the significance difference exists between the stress scores with respect to gender and Sector (Public vs Private). Forth, to find out the significance differences among the stress scores of faculty members and various categories of designation & Age. Finally, to identify the stress coping strategies, the faculty members apply to reduce or eliminate stress.

Methodology:

The study is conducted in a natural setting and the nature of the data is cross-sectional. The research instrument used in the study is adopted by the popular Gmelch's FSI (Faculty stress index) for the identification of sources of stress. The research instrument consists of three sections. First section consists of questions related to background variables (age, designation, salary etc). Second section involves Faculty Stress index which comprises of 44 job related items on a Likert 5 type scale rating from "1" (No Stress) to "5"(Excessive Stress) . It also contains questions related to the general level of stress in life and in particular in the work environment. Third section contains questions relating to coping strategies, i.e. the ways which faculty found most helpful in handling the tensions and

pressures of their job. The questionnaire is gone through minor modifications, mainly linguistic, to suit the unique Pakistani system. The version of the questionnaire was administered in the context of a pilot study from a sample of faculty members in Public & Private Universities.

A sample of 289 full time faculty (Males 178 & 111 Females) members from the 12 universities of Punjab (which is around 48 % of the total Population) was selected on the basis of convenience sampling. The self-administered questionnaires were send to the participants through mail and through personal visits.

Data Analysis:

Descriptive as well as the inferential analysis were conducted on the data to fulfill the desired objectives of the study. The data revealed that the top ten stressors perceived by the Faculty members as generating high stress are;

The table 2 & 3 shows that there are similarities as well as differences among the stressors perceived by the males & females Faculty members

The research Hypothesis to achieve the second, third and forth objectives are:

H_{0A}: There is no association exists between the job stress & designation

H_{1A}: There is association exists between the job stress & designation

H_{0B}: There is no association exists between the job stress & age

H_{1B}: There is association exists between the job stress & age

H_{0C}: There is no association exists between the job stress & salary

H_{1C}: There is association exists between the job stress & salary

H_{0D}: There is no association exists between the job stress & daily life stress

H_{1D}: There is association exists between the job stress & daily life stress

H_{0E}: There is no significance difference between stress scores of private & public sector faculty members

H_{1E}: There is significance difference between stress scores of private & public sector faculty members

H_{0F}: There is no significance difference between stress scores of males & females

H_{1F}: There is significance difference between stress scores of males & females

H_{0G}: There is no significance difference among stress scores of faculty members of different designations

H_{1G}: There is significance difference among stress scores of faculty members of different designations

H_{0H}: There is no significance difference exist among the stress scores of faculty members of different ages.

H_{1H}: There is significance difference exist among the stress scores of faculty members of different ages.

Chi-Square analysis was also conducted to check the association of Faculty job stress with some of the Background variables such as Designation, age & salary. Also the association between the job stress and daily stress was checked to know that whether any relation exist between the stress coming from two different sources (Job stress Vs Daily life Stress). It was found that there is an association between the stress and designation (p-value is 0.004 which is less then 0.05, rejecting H_{0a}), stress and Age (p- value=0.046 < 0.05, rejecting H_{0b}) and stress and salary (p-value=0.029< 0.05, rejecting H_{0c}). Moreover, there is significant association between the job Stress and the daily life stress (p-value=0.000, rejecting H_{0d}).

As our t-stat value from above table is greater than critical value(2.36>1.96), so, we reject H_{0f} and conclude that there is a significant difference between stress score of male and female, male average score of stress is more than females. The research conducted by (Burke & Weir, 1976; Golembiewski, 1977) also reported that women experience low levels of stress as compared to men in comparable roles. The reason of male faculty members having more stress is embedded in the cultural context of Pakistan. In Pakistan, men are essentially required to earn whereas for women, doing job is an optional thing.

Second t-test is performed to find out the difference between the faculty members stress scores w.r.t. Public & private sector.

The hypothesis that there is no significant difference between the stress scores with respect to public or private sector is rejected because (t-cal >t-crit, rejecting H_{0e}) from the following table, private sector feels more stress as compare to public sector. In Pakistan, generally the Private sector universities present more demanding working scenarios as compared to Public sector. Moreover, the absence of job securities and after retirement benefits in Private sector are the contributing factors of generating more stress.

Third, Analysis of Variance is conducted to know the significance difference of stress exists among the designation & ages. The result indicates that there is significance difference exist among the stress scores of faculty members having different designations & ages (rejecting H_{0g} & H_{0h}).

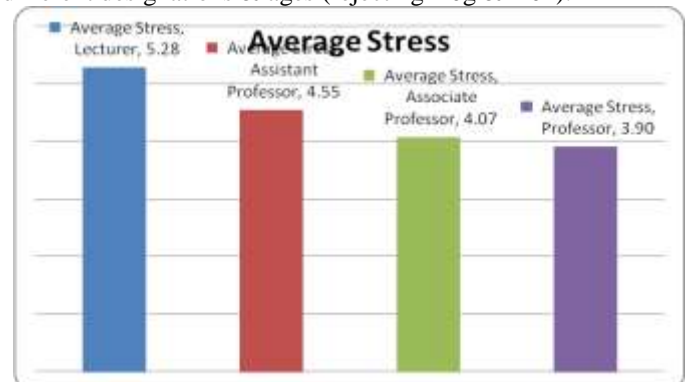


Table 4 and Bar chart shows that average stress decreases as the designation goes up

Table 5 shows that there is significant difference exist among the stress scores of lecturers and assistant professor, associate professor and Professor. Whereas there is insignificant difference between the stress scores of assistant professor and associate professor, insignificant difference between associate professor and professor. The research by Gmelch also revealed that higher ranks are associated with lower levels of stress.

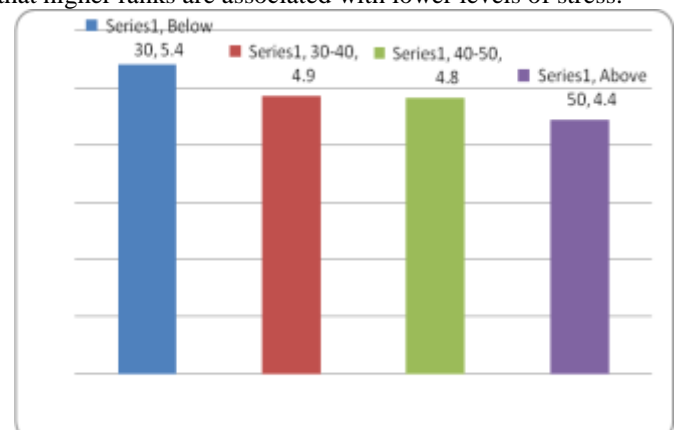


Table 6 shows that there is significant difference exist among the stress scores of ages below 30 and above 50. Whereas there is insignificant difference between the stress scores with other age categories. Overall, the analysis shows that younger faculty members experience more stress as compared to older ones. Once again the result confirmed the study conducted by (Alexander , Adams & Martray, 1983) that also reported the same results of stress with respect to age.

Finally, majority of the female faculty members are of the point of view that the most helpful coping strategy was the Supportive Attitude followed by personal interest, self management techniques etc. Where the most helpful stress coping strategy for the male faculty members are entertainment followed by Supportive Attitude.

Conclusion:

The study is conducted to identify the top stressors experienced by the faculty members of the universities of Punjab. The analysis reveals that stressors experienced by the faculty members vary significantly with respect to gender. Moreover, the study also found associations between the job stress with designations, age, salary & daily stress. As far as the sector wise analysis is concerned, faculty members of Private universities experience more stress as compared to Public sector universities, younger ages faculty feels more stress as compared to older ones and high stress is generally related with the low level designations as compared to higher ones. The current research will help for the further developments in the area of faculty stress in a deeper perspective. The research can be applied at the nationwide universities as well.

Table 1

	Overall Top ten stressors	Maximum Response(%)
1	Believing that the progress in my career is not what it should or could be	20.6
2	Receiving insufficient salary to meet financial needs	17
3	receiving insufficient recognition for teaching performance	16.3
4	Preparing a manuscript for publication	15.6
5	. Having repetitious teaching and job Assignment	14.5
6 (a)	Having inadequate facilities (Office, library, laboratories, classrooms)	14.3
6(b)	. Not having clear criteria for evaluation of research and publication activities	14.3
7	Having insufficient authority to perform my responsibilities	13.2
8	Being drawn into conflicts between Colleagues	13.1
9	Trying to influence my Head's actions and decisions which affect me	12.9
10	Having insufficient time to keep abreast of current developments in my field	12.8

The study also analyzed the top five high-stressors with respect to Gender.

Table 2

	Top five Stressors of Male faculty members	Maximum Response(%)
1	Believing that the progress in my career is not what it should or could be	22.2
2	receiving insufficient recognition for teaching performance	20.2
3a	Preparing a manuscript for publication	16.9
3b	. Having repetitious teaching and job Assignment	16.9
3c	Receiving insufficient salary to meet financial needs	16.9
4	Trying to influence my Head's actions and decisions which affect me	16.3
5	Having insufficient authority to perform my responsibilities	15.8

Table 3

	Top five Stressors of female faculty members	Maximum Response (%)
1	Trying to influence my Head's actions and decisions which affect me	19.8
2	Believing that the progress in my career is not what it should or could be	18
3	Dealing with program changes or reduced enrollment impact my job	17.3
4	Receiving insufficient salary to meet financial needs	17.1
5	Evaluating the Performance of students	16.2

**T-test is conducted to find out that difference between the stress scores of males & females faculty members.
t-Test: Two-Sample Assuming Equal Variances (Gender wise comparison)**

	male	female
Mean	5.07	4.62
Variance	2.45	2.52
Observations	178	111
Pooled Variance	2.50	
Hypothesized Mean Difference	0.00	
Df	287	
t Stat	2.36	
t Critical two-tail	1.96	

t-Test: Two-Sample Assuming Equal Variances		
	<i>Private</i>	<i>Public</i>
Mean	5.60	5.01
Variance	2.46	2.67
Observations	47.00	242.00
Pooled Variance	2.64	
Hypothesized Mean Difference	0.00	
Df	287.00	
t Stat	2.25	
t Critical two-tail	1.96	

ANOVA (Stress scores & designation) Table 4

ANOVA					
s.o.v	df	SS	M.S	F-ratio	F-crit
Designation	3	64.54	21.51	9.22	2.64
Within	238	555.13	2.33		
Total	241	619.67			

As F-ratio is greater than the F-critical, it is significant.

Table 5

Designation		mean difference	t-stat	Remarks
Lecturer	Assistant Professor	0.7	3.13	Significant
	Associate Professor	1.2	2.55	Significant
	Professor	1.4	4.27	Significant
Assistant Professor	Associate Professor	0.5	1.17	In Significant
	Professor	0.6	2.30	Significant
Associate Professor	Professor	0.2	0.50	In Significant

Designation	Average Stress
Lecturer	5.28
Assistant Professor	4.55
Associate Professor	4.07
Professor	3.90

ANOVA (Stress scores & Age) Table 6

ANOVA					
S.O.V	df	S.S	M.S	F-ratio	F-crit
Between Age	3	22.06	7.35	2.81	2.64
Within	233	610.70	2.62		
Total	236	632.77			

As F-ratio is greater than the F-critical, that's why it is significant.

Multiple Comparision				
		mean difference	t-stat	Remarks
Below 30	30-40	0.6	1.85	Insignificant
	40-50	0.6	1.84	Insignificant
	above 50	1.0	3.06	Significant
30-40	40-50	0.0	0.1	Insignificant
	above 50	0.4	1.37	Insignificant
	above 50	0.4	1.33	Insignificant

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