Review Paper

Stress and Burnout in the Higher Education Sector in Pakistan: A Systematic Review of Literature

Rosman Md. Yusoff[1] and Faisal Khan[2*]
[1]Faculty of Management, Universiti Teknologi, (UTM), MALAYSIA
[2]Faculty of Management (FM), Universiti Teknologi, (UTM), MALAYSIA

Abstract

The paper explores stress and burnout in higher education sector of Pakistan. It explores the historical neglect poverty and socio-political marginalization, complemented by natural disasters and anti-terrorist military operations. These are causes for less development in the sector. Additional to them, internal job related factors add to cause stress and burnout. The paper conducted a systematic literature review including papers from 8 journals and 6 books in 4 electronic databases. It concludes that teachers and administrators should know about job stress, burnout, stressors and coping mechanisms and produce policies for making the working environment congenial.

Keywords: Stress, stress management, burnout, performance, higher education, turnover.

Introduction

The word stress is derived from Latin word Stringere which means 'to draw tight'[1]. French writers use the word distress which means 'place under authority'[2]. Hartig and his colleagues[3] defined that a process in response to imbalance in demands and resources. It is defined as the force exerted on a person that causes tension, It is defined as demand which creates threats to acquire changes[4,5]. Job stress results from job demands, absence in decision making process and social problems[6,7]. Job stress implicates for organizational functions and quality of work-life, from two perspectives; employee perspective that relates to psychological wellbeing and organizational perspective, associated with shared behaviors. Job stress forecasts job satisfaction, leads to dissatisfaction[8,5] and inversely related to performance that is negatively affected by stressful situations[9,10] it is also effected on workload as low or high[11] and causes health hazards resulting in absenteeism, low productivity, dissatisfaction and turnover[12,13].

Burnout is a specific form of chronic stress, visible as emotional exhaustion, depersonalization and reduced sense of personal accomplishment[14-16] and one of the main outcome of Job stress due to its exponential impact on profession[17]. It is less convincing to limit burnout to human services only as it equally relates to family factors[18]. Its outcomes are same throughout in all occupations and are known as exhaustion and avoiding emotional involvement[19].

Job stress in academia is due to imbalance between job demands and their ability to respond. Academic staff involved in research and teaching may give rise to a conflicting situation as both need energy and concentration. The symptoms found among lecturers are tiredness, sleeping problem and concentration. These are more visible when more workload is expected to attract external research funds[20]. Teachers are more pressurized to impress their seniors, meeting targets set by administration and attending different meetings. Overwork, insecurity in jobs, poor communication, and organizational conflicts give rise to burnout (Emotional Exhaustion) and stress[21-26]. Job stress attributes to certain factors in Pakistani higher education sector (PHES), e.g. inequitable distribution of rights and duties, no clear rewards policy and mostly ill-articulated but no written code of conduct. Lacks of training and proper counseling add to severity of job stress as employees fail to cope with untoward situations[27,28]. American teachers (63%) view students' departmental problems as stressor[29]. Origins of teachers' stress are from emotional outbursts, and derogatory students' remarks resulting as a consequence of overall academic environment[30].

Parents have high expectations from teachers and attribute low individual performance to them. They assume teachers as answerable for everything, which may become a stressor. Interference of parents in student teacher relation may aggravate situations to a level that may causes burnout[31]. Low student's engagement during teaching hours can be a cause of student's attitudinal problems[32]. Serious concerns are unscientific faculty regulations, management style along with lack of administrative support[33]. Favoritism is another stressor which affects well-being and performance[34]. Lack of administrative support causes stress, burnout and leads to job switching[35]. Stress occurs teachers while they try to make themselves accountable during more meetings, paper work and more documentation. Performance assessment may also add to stress as such processes mostly are done over and above the classroom[36]. Developing countries are struggling as they have to equip their

educational institutions with technologies and have more importantly to train their teachers to utilize those resources properly[37, 38].

Academia is under pressure due to heavy workload, job demands and publication efforts[39]. It is observed as strained due to policies, asking for high performance in teaching, research and pursuing studies. Innovation and creativity has its fallout related to stress when one of the objective is to save money or to attract and earn funds particularly in Asia[40]. Higher Education Commission (HEC) of Pakistan has recently subjected the appointments for higher positions based on research publications. Pakistani teachers are stressed due to high performance demands in the new competitive era of HEC[41-43]. PHES is governed by HEC and Ministry of Education since 2002. Earlier, University Grant Commission was established in 1974, after 27 years without any centralized body for PHES[44,45]. Achievements of HEC (table-1) in last decade are considerable but job stress and burnout is a negative residual.

External factors prove a hurdle to ensure a stress-free environment in PHES, which is suffering from unemployment, injustice, uncontrolled population, terrorism and political instability. An environmental cause of depression also consists of traumatic events, stress and different childhood problems[46]. This situation has been further aggravated by war on terror and climatic catastrophes. The issue grew more intense when the GOP decided to conduct armed military operations. Five million people in KPK province were internally displaced, 40,000 citizens and military personal have died in this war causing a damage of more than USD 80 Billion. Hundreds of schools have been destroyed, depriving children from education. Importantly, girls are the most affected as militants specially target female educational institutions[47-49]. For more than twenty years, energy crisis has been pivotal to negative trend in the country's

economic growth. Failure to resolve the crisis mainly springs from imbalance in supply and demand, as the country produces less than it requires. Pakistan was hit by a major earthquake in 2005 which caused the loss of human lives and destruction of public and private properties including state departments, hospitals and educational institutions. The death toll was 73,000 while millions had been left homeless. The buildings had either been demolished completely or were left in ruins particularly educational ones[50]. In July 2010, Pakistan was hit by flash floods (FF), almost 15% populations was affected including nine million children, old age people and women, 1.6 million household damaged and 3 million people were homeless. Development expenditure was cut to restore the flood hit areas[51,52]. Energy crisis complemented by natural disasters and military operations causes relatively lower output and less development in HES, in later years of last decade. These are additional to internal factors which contribute in job stress and burnout. Most studies on JOB STRESS in academia are conducted in developed countries as compared to developing countries[53]. Job stress and burnout has been rarely focused in PHES. This paper focuses Job stress and burnout in PHES through investigation of prevailing factors. It discusses how stress relates to workplace resulting in job stress? How stress develops among teachers? How does it transform to burnout? And what are factors of burnout?

Methodology

SRL consists of 26 papers from 1991 to 2012. The author studied 47 journal articles of last thirty years, along with books, reports, thesis and governmental documents (GD) (table-2). Databases consulted include Taylor and Francis, Education Resources Information Center, Science Direct, Willy Online Library and Jstor. Percentages of sources are given in table 3 and 4.

Table-1
HEC Achievements 2001-2011

Year	HEC Recognized Universities			Expenditure (Rs in Millions)	Enrolment	PhD	Publications
	Public	Private	Total				
2001-02	46	36	82	-	2,76,274	204	815
2002-03	57	46	103	7723.402	331745	276	948
2003-04	58	51	109	10273.09	423236	276	1038
2004-05	60	52	112	15935.68	457642	312	1306
2005-06	61	53	114	21384.29	521473	328	1759
2006-07	62	54	116	28741.68	640061	408	2475
2007-08	60	55	115	27926.95	741092	438	3639
2008-09	68	56	124	18415.93	803507	628	4171
2009-10	71	57	128	44000.00	935596	819	5489
2010-11	73	59	132	29500.00	11,05,307	826	7366
2011-12	74	61	135	-	-	863	-
Total	-	-	-	-	-	5378	29006

Source: ESP (2008-11)

Table-2
Sources Description

S #	Source		Number of Items		Percentage
1	Journal Articles		47		64
2	Conference Articles		4		5.5
3	Books	Books	6	4	10
		Book Sections		2	
4	Reports		2		3
5	Electronic Articles		4		5.5
6	WebPages		3		4
7	Thesis		1		1.4
8	GD		7		9.6
	Total		73		100.00

Table-3
HRD Related Sources

Variable	Type	Name	Frequency	Database/Publisher
Stress and Burnout	Journals	Work and stress	6	Taylor and Francis
		Journal of Organizational Behavior	1	Emerald Insight
		Journal of Managerial Psychology	2	Willey Inter-science
		Journal of Criminal Justice	2	Taylor and Francis
		Journal of Applied Psychology	2	Web of Science
		International Journal of SM,	2	Science Direct
		International Journal of Industrial Ergonomics	2	Science Direct
		Recent Journal of Recent Sciences	2	
	Books, Book Sections and Electronic Books	The Wisdom of the Body	1	Cannon and Walter Publisher New York
		Stress: A brief History	2	John Wiley and Sons
		Maslach Burnout Inventory Manual	2	Consulting Psychologists Press
		Burnout and worn-out: Concepts and data from a national survey 2005	1	Hallsten, Lennart
		Burnout as a developmental process: consideration of models. 1993	1	Taylor and Francis.
	GD	Websites of HEC www.hec.gov.pk and Economic Survey of Pakistan www.ead.gov.pk		www.hec.gov.pk www.ead.gov.pk

Table-4
'Stress and Burnout' Related Sources

Variables	Type	Name	Frequency	Database
Education	Journals	Teaching and teacher education	2	Science Direct
		Sociology of Education,	1	Emerald Insight
		Journal of Social Science	2	Willey Interscience
		Educational Research	2	Taylor and Francis
		British Journal of Educational Psychology	2	Web of Science
	Book	Stress and teaching	1	Swick., Kevin J.
	Electronic Articles, Reports, Online Databases, WebPages and GD	Assessment of emotional states and personality traits: Measuring psychological vital signs.	1	Oxford University Press.
		Teacher job satisfaction in developing countries	1	Garrett. R. M
		Faculty Stress at Higher Education: A study on Business Schools of Pakistan	1	Aqsa Akbar, Waheed Akhtar

Topics related to Job stress, burnout and HES were generally searched and specifically in Pakistan with Google.com. Most cited 8 journals related to stress and burnout is mentioned in table-3, while 5 journals related to HES are mentioned in table 4. Similar methodology of SRL is adopted for stress management (SM)[54] and burnout[57].

Papers selection include 'stress and burnout', narrowed to Job stress and burnout in PHES. Government websites were selected for updated facts and figures. The studies related to schools and the health sector were also included, since teaching is a common phenomenon in both the schools and universities, while health sector include thorough counseling of the patients, which can also be related as educating and teaching of the patients. All these fields demand good communication and emphatic skills.

Banking was excluded because it deals with totally different customer interface and skills' requirement.

The paper include keywords based search from different databases e.g. Science Direct, Jstor, Emerald and Taylor and Francis. Keywords used are Stress, Burnout, stressors and Higher Education in Pakistan. Search was conducted out of 193 studies where 85 were excluded as 30 of them were related to schools and 20 to hospitals and 35 to banking. Among the other, 108 studies were selected included 37 related to burnout, 36 to stress, 11 to Pakistan and 4 to Government websites. However, only 47 were peer reviewed and relevant, among which 26 were coded by author name, year, keywords, methods and data sources (table-5).

Table-5
Literature Summery

S #	Publication Author/ Year	Keywords	Research Design	Country/ Organization Size
1	Azam et al., (2012)	Disaster Management, Transformation, HR Coping Capacity Gaps	SRL	Pakistan
2	Raza (2012)	Occupational Stress, Job satisfaction	CSS	Pakistan/500
3	Watts and Robertson (2011).	Burnout, University, Teachers, students, support, Postgraduates	SRL	UK /85
4	Akbar and Akhtar (2011)	Faculty Stress, Higher Education, Stress Coping Strategies, Workload	CSS	Pakistan/300
5	Bhatti et al., (2011)	Job stress, Academician, Public sector Universities	CSS	Pakistan/400
6	Manzoor et al., (2011)	Job Stress, Job Satisfaction, University faculty members.	CSS	Pakistan/155
7	Usman et al., (2011)	Work stress, role conflict, Role Ambiguity, Stress and job satisfaction	CSS	Pakistan/160
8	Economic Survey of Pakistan. (2011)		GD	Pakistan
9	Ahmad (2011)		GD	Pakistan
10	Agbatogun (2010)	Teachers, Technologies, SM, Educational Output	CSS	Nigeria/706
11	Klassen (2010)	Collective efficacy, stress, teachers	CSS	Canada /951
12	Lee and Shin (2010)	Job stress, Data mining, Response Surface Methodology		
13	Chaplain (2008)	Stress psychological distress, disruptive behavior	CSS	England
14	Martinussen et al., (2007)	Job Satisfaction, Intention to quit, Organizational Commitment	CSS	Norway/223
15	World Bank (2007)		Report	Pakistan
16	Rasmussen and Jeppese (2006)	Teams, psychological variables, employee participation, Job stress	SRL	
17	Jepson and Forrest (2006)	Personal Achievement, Commitment, Gender, Experience, Job stress	CSS	95
18	Shirom (2005)		SRL	USA
19	Kristensen et al., (2005)	Copenhagen Burnout Inventory, exhaustion, fatigue, work environment	CSS	1914
20	Bekker et al., (2005)	Nurses, Gender, Emotional Exhaustion, Burnout, Absenteeism,	CSS	Netherlands/404
21	Lackritz (2004)	Burnout; Academic, Teaching, Factors, Workload, Residual	CSS	265
22	Zembylas and Papanastasiou (2004)	Teachers, Job satisfaction, Cyprus	CSS	Cyprus/461
23	Winefield et al., (2003).	Occupation stress, University Staff	CSS	Australia/178
24	Government of Pakistan. (2002)		GD	Pakistan
25	Gillespie et al., (2001)	Stress, Academic Staff, University Staff	CSS	Australian /N=178
26	Byrne (1991)	Gender, Age, Marital Status, Student Type	CSS	642

Results and Discussion

The paper analyzed journal papers with Cross Sectional Study (CSS) and SRL methods and came with following findings:

Raza[43] analyzed 500 university lecturers regarding Job stress and satisfaction in PHES. It found 4 major factors for Job stress as physical, environmental risk, psychological and general factors.

Watts and Robertson[55] studied 85 university staff regarding burnout in teachers and students support in HES of the UK. They found that Burnout is more existent in young staff, number of students effects teachers' burnout and gender is more associated to depersonalization then to emotional exhaustion.

Akbar and Akhtar[56] studied faculty's job stress in the education sector included a discussion on stress coping strategies and workload on a sample of 300 in Pakistan. The result shows that role conflict, workload and students issues are significant stress sources. The study shows that private sector is more stressful than public sector for teachers. Teenagers, female, and less qualified faculty are more stressed as compared to old male and highly qualified.

Bhatti, Hashmi, Raza, Shaikh, and Shafiq[41] studied 400 university faculty regarding job stress. In this study factors of occupational Stress have been studies which are workload pressure, role ambiguity, management role, performance pressure and relationship with others. The study shows that job stress and job satisfaction has significant negative relations and 70 percent of faculty members are not satisfied with salaries. Occupational stress has negative impact on health.

Manzoor, Usman, Naseem, and Shafiq[57] explored 155 universities lecturers regarding, job stress and job satisfaction Pakistan. It reveals that job is an essential part of life and dissatisfaction with it negatively affects quality of life. The findings of the study shows that only 13.5% employees are highly satisfied while only 2.5% suffer from high stress in job and majority of them are averagely satisfied from their jobs.

Usman, Ahmed, Ahmed and Akhtar[58] studied 160 university lecturers regarding work stress, role conflict, role ambiguity, stress and job satisfaction in the educational sector of Pakistan. The result shows that there is positive and important relationship between the role stress such as role ambiguity, role conflicts and work stress in university faculty is negatively related to organizational commitment and job satisfaction.

Agbatogun[59] studied 706 teachers regarding the role of technologies for SM in the educational sector of Nigeria. The study is based on use of technologies for primary school teachers. The study shows that use of information and technologies minimizes stress by reducing workload and thus positively affects the mental health of teachers and also the quality of education.

Klassen[60] examined 951 teachers regarding Collective efficacy, stress and teachers in an educational study of Canada. The study examined the structure of teacher collective efficacy (TCE), occupational stress and job satisfaction and secondly examined how TCE affects mediate in job satisfaction and occupational stress. Female teachers have more stress from student misbehavior and workload.

Lee and Shin[7] conducted study regarding Job stress, Data mining and Response surface methodology in the industrial study. To them, in order to improve the level of satisfaction of industrial workers it is important to analyze the causes of occupational stress. The methodology, used is analysis of the causes of occupational stress which are psychosocial, environmental and physical setting with in industry.

Chaplain[61] studied stress, psychological distress, and disruptive behavior, in the educational study of England. The study examined the relation between teacher stress and mental health. There are three major variables identified i.e. lack of support, workload and behavioral management. Gender differences were also identified.

According to Martinussen, et al.,[17] there is no gender difference in burnout but only age is related to exhaustion because in older age emotional exhaustion is high. Burnout is not high among police as compared to other occupational organizations. Family pressure is an important factor for all of three syndromes of burnout. This is a study on 223 police officers regarding Job Satisfaction, Intention to quit, and Organizational Commitment in criminal department of Norway.

Rasmussen and Jeppesen[54] conducted SRL on teams, teamwork, psychological variables, employee participation, autonomy, and work-related stress. The study shows that psychological factors have positive relation with team authority and interdependence and also shows the strong relationships between psychological factors and teamwork.

Jepson and Forrest[27] conducted a Cross Sectional study on 95 teachers regarding Type A behavior, personal achievement strivings, Occupational commitment, gender and nature/experience of teaching on perceived workplace stress in the educational sector. The study results show from multiple regressions that there is positive relation in perceived stress, Type-A behavior and personal achievement while perceived stress have negative relations with occupational commitment.

Shirom[62] conducted SRL and revealed that burnout is the outcome of stress common in developed countries. It is generic but it has been produced due to working environment and some family issues.

Kristensen, et al.,[15] conducted CSS on education sector with a sample size of 1914, regarding burnout and developed an inventory called "Copenhagen Burnout Inventory", including

exhaustion, fatigue, human service work, psychosocial work environment, PUMA study, questionnaire validity. The study discussed Maslach burnout Inventory (MBI) to find burnout. This method consists of three important scales which are used in different domains that is, Client related burnout, personal burnout and work related burnout. The reliability and validity of the CBI was analyzed by PUMA (Project on Burnout, Motivation and Job satisfaction) whose results are satisfactory.

Bekker, et al.,[18] and Lackritz[63] studied 404 nurses and 265 university staff in Netherlands, highlighted healthcare, childcare, nurses, gender, gender differences, emotional exhaustion, burnout, absenteeism, sickness absence, work attitudes, and Job Characteristics. They show gender differences for burnout and sickness absence. Factors investigating gender role are work attitude, childcare obligations and job characteristics. Emotional exhaustion and sickness absence are more in female nurses. Non-work attitude is also positively related to sickness absence. Age is negatively correlated to the emotional exhaustion but not significant difference with race.

Zembylas and Papanastasiou[64] studied 461 teachers regarding teachers and job satisfaction in the educational sector of Cyprus. The study wants to motivate people towards the teaching profession. At first 63.3% respondents have chosen teaching but after some time 70% have changed.

Winefield, Gillespie, Stough, Hapuarachchi, and Boyd[20] studied 178 faculty members from 15 Australian universities and conducted 22 focus groups regarding job stress. They found higher stress in academic staff then general staff. Majority of staff said that job stress have adverse impact on their personal and professional life. Stressors included insufficient funding, overload, poor management, job insecurity, insufficient recognition and reward. The coping mechanisms included positive work environment and personal coping strategies.

Gillespie, et al.,[65] conducted a CSS on Job stress of 178 Australian university staff. The study shows that academic staffs have more stress than general. The significant sources found were work overload, job insecurity, less resources, poor management and recognitions and rewards. Stress also had impact on the personal welfare and work.

Byrne[66] conducted a CSS on a sample of 642. The paper discussed gender, age, marital/family status and type of student taught. The study shows that postgraduates are significant of personal accomplishment. Age is important in emotional exhaustion and personal accomplishment. Male and female difference have significant effects on emotional exhaustion and depersonalization to produce stress in the educational institutions, organizational factors are more significant in every level of academic system.

Conclusion

The paper concludes that stressors includes homework interface, administration role, relationship with others, role ambiguity, performance pressure and workload[41,57] students related problems and role conflicts[56] low Salaries, unavailability of physical resources, academic problems, inexperienced teachers[41] self efficiency, job performance, number of students in class, marital status and experience[67], ambiguity of job outcomes e.g. organizational commitment and job performance[58]. It provides relationship between different stressors and their outcomes like turnover and decreased organizational commitment. The paper serves as a guide for future researchers to analyze the decreasing trend in teacher performance and their vulnerability to job stress. Technological advances have considerably added to the efficiency of teachers and have lessened their burden thus a huge support to avoid stressful situations[21, 68]. Job stress and burnout can be reduced by ensuring technologically based teaching strategies[59].

The paper recommends that academic staff should know about stressors and their performance impact. This will enable them to take appropriate measures to minimize those stressors and also to design and redesign their jobs. It recommends to policy makers in PHES of updating their existing repertoire to effectively design and framing policy to maximize the satisfaction level of the teaching community.

References

1. Cooper C.L. and Dewe P.J., *Stress: A Brief History*: John Wiley & Sons **(2004)**

2. Humphrey J.H., *Anthology of Stress Revisited: Selected Works Of James H. Humphrey*: Novinka Books **(2005)**

3. Hartig T., Kylin C. and Johansson G., The Telework Tradeoff: Stress Mitigation vs. Constrained Restoration, *Applied Psychology,* **56(2)**, 231-253 **(2007)**

4. Coleman J.C., Morries C.G. and Glares A.C., *Contemporary Psychology and Effective Behaviour* (Sixth ed.), Glenview IL: Scott, Foresman **(1987)**

5. Patiraj K. and Richa M., Effect of Job Stress and Personal Life Stress on Mental Health and Job Outcomes of Medical Professionals, Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1437409 **(2009)**

6. CUPE, Enough Workplace Stress: Organizing for Change. Canadian Union of Public Employees, Ottawa, Ontario, K2P OW6 *Canadian Union of Public Employees* **(2003)**

7. Lee Y. and Shin S., Job stress evaluation using response surface data mining. [doi: 10.1016/j.ergon.2010.03.003], *International Journal of Industrial Ergonomics,* **40(4)**, 379-385 **(2010)**

8. Kaur R. and Chaddha N.K., Study of job stress with job involvement and job satisfaction, *Indian Journal of Behaviour,* **12**, 34-40 **(1988)**

9. Ganster D.C. and Schaubroeck J., Work stress and Employee Health, *Journal of Management,* **17**, 235-271 **(1991)**

10. Jex S.M., Stress and job performance: theory, research, and implications for managerial practice: Sage Publications, **(1998)**

11. Choi S.L., Ahmad J., Musibau A.A. and Lim C.G., A Review on Job Stressor in the Perspective of Health Care Industry, *Research Journal od Recent Sciences,* **2(3)**, 81-86 **(2013)**

12. Cummins R.C., Job stress and the buffering effect of supervisory support, *Group and organization studies,* **15(1)**, 92-104 **(1990)**

13. Spielberger C.D., Ritterband L.M., Sydeman S.J. and Reheiser E.C. and Unger K.K., Assessment of emotional states and personality traits: Measuring psychological vital signs. In J.N.Butcher (Ed.), Series on Clinical Psychology: Practical Considerations in Clinical Personality Assessment, *The California School of Organizational Studies Handbook of Organizational Counsulting Psychology A Comprehensive Guide To Theory, Skills, And Techniques,* **1**, 42-58 New York: Oxford University Press, **(1995)**

14. Burke R.J. and Greenglass E.R., Job Stressors, Type A Behavior, Coping Responses, and Psychological Burnout Among Teachers, *International Journal of Stress Management,* **2(1)**, 45-57 **(1995)**

15. Kristensen T.S., Borritz M., Villadsen E. and Christensen K.B., The Copenhagen Burnout Inventory: A new tool for the assessment of burnout, [doi: 10.1080/02678370500297720], *Work & Stress,* **19(3)**, 192-207 **(2005)**

16. Maslach C. and Jackson S.E., The measurement of experienced burnout, *Journal of Organizational Behavior,* **2(2)**, 99-113 **(1981)**

17. Martinussen M., Richardsen A.M. and Burke R.J., Job demands, job resources, and burnout among police officers, [doi: 10.1016/j.jcrimjus.2007.03.001], *Journal of Criminal Justice,* **35(3)**, 239-249 **(2007)**

18. Bekker M.H.J., Croon M.A. and Bressers B., Childcare involvement, job characteristics, gender and work attitudes as predictors of emotional exhaustion and sickness absence, [doi: 10.1080/02678370500286095], *Work & Stress,* **19(3)**, 221-237 **(2005)**

19. Schlichte J., Yssel N. and Merbler J., Pathways to Burnout: Case Studies in Teacher Isolation and Alienation, [doi: 10.3200/PSFL.50.1.35-40], *Preventing School Failure: Alternative Education for Children and Youth,* **50(1)**, 35-40 **(2005)**

20. Winefield A.H., Gillespie N., Stough C., Hapuarachchi J. and Boyd C., Occupational stress in Australian university staff: Results from a national survey, *International Journal of Stress Management,* **10(1)**, 51-63 **(2003)**

21. Calloway J., Technology, Stress and the lawyer's quality of life, *Oklahoma Bar Journal,* **74(30)**, **(2003)**

22. Gupta N., Some Sources and Remedies of Work Stress among Teachers: Southwest Educational Development Laboratory, 211 East Seventh Street, Austin, TX 78701 ($3.00), **(1981)**

23. Johnstone M., Time and Tasks: Teacher Workload and Stress. Spotlights 44: Scottish Council for Research in Education, 15 St. John Street, Edinburgh, Scotland EH8 8JR, **(1993)**

24. King R.M., Managing Teaching Loads--And Finding Time for Reflection and Renewal, *Inquiry,* **7(1)**, 11-21 **(2002)**

25. Ling L., A Study of Occupational Stress Among Hong Kong aided Scondary Shool Tachers, Hong Kong, **(1991)**

26. Moore R.K., A comparison of the Data Requirements of Automatic Speech Recongnition Systems and Human Listeners, 2582-2584 **(2003)**

27. Jepson E. and Forrest S., Individual contributory factors in teacher stress: The role of achievement striving and occupational commitment, *British Journal of Educational Psychology,* **76(1)**, 183-197 **(2006)**

28. Kyriacou C., Teacher stress and burnout: an international review. [doi: 10.1080/0013188870290207], *Educational Research,* **29(2)**, 146-152 **(1987)**

29. Kuzsman F.L. and Schnall H., Managing teachers' stress:Improving discipline, *The Canadian School Executive,,* **6**, 3-10 **(1987)**

30. Lee V.E. and Smith J.B., Effects of School Restructuring on the Achievement and Engagement of Middle-Grade Students, *Sociology of Education,* **66(3)**, 164-187 **(1993)**

31. Cockburn A.D., Primary teachers' knowledge and acquisition of stress relieving strategies, *British Journal of Educational Psychology,* **66(3)**, 399-410 **(1996)**

32. Klem A.M. and Connell J.P., Relationships Matter: Linking Teacher Support to Student Engagement and Achievement, *Journal of School Health,* **74(7)**, 262-273 **(2004)**

33. Violanti J.M. and Aron F., Police stressors: Variations in perception among police personnel, [doi: 10.1016/0047-2352(95)00012-F], *Journal of Criminal Justice,* **23(3)**, 287-294 **(1995)**

34. Klockars C.B., Ivković S.K. and Haberfeld M.R., Enhancing police integrity, Dordrecht, *The Netherlands: Springer Verlag,* **(2006)**

35. Billingsley B.S., Special Education Teacher Retention and Attrition: A Critical Analysis of the Literature, *Center on Personnel Studies in Special Education University of Florida*, 3-7 **(2003)**

36. Schaufeli W.B. and Taris T.W., The conceptualization and measurement of burnout: Common ground and worlds apart The views expressed in Work and Stress Commentaries are those of the author(s), and do not necessarily represent those of any other person or organization, or of the journal, [doi: 10.1080/02678370500385913], *Work & Stress,* **19**(3), 256-262, **(2005)**

37. Fimian M.J. and Santoro T.M., Sources and Manifestations of Occupational Stress as Reported by Full-Time Special Education Teachers, *Exceptional Children,* **49**(6), 540-543 **(1983)**

38. Terry P.M., *Teacher burnout: Is it real? Can we prevent it?,* Paper presented at the Annual meeting of the North Central Association of Colleges and Schools, Retrieved from http://www.eric.ed.gov/PDFS/ED408258.pdf, **(1997)**

39. Goldenberg D. and Waddell J., Occupational stress and coping strategies among female baccalaureate nursing faculty, *Journal of Advanced Nursing,* **15**(5), 531-543 **(1990)**

40. Drazin R. and Schoonhoven C.B., Community, Population, and Organization effects on innovation: A Multilevel perspective (p.1081), *Academy of Management Journal,* **39**(5), 1065-1083 **(1996)**

41. Bhatti N., Hashmi M.A., Raza S.A., Shaikh F.M. and shafiq K., Empirical Analysis of Job Stress on Job Satisfaction among University Teachers in pakistan, *International Business Research,* **4**(3), 246-270 **(2011)**

42. HEC. Offical website of Higher Education Commision of Pakistan, Retrieved 01 Dec 2012, from http://www.hec.gov.pk/InsideHEC/Divisions/QALI/Others /Statistics/Pages/YearWiseSummary2.aspx, **(2012)**

43. Raza A., Relationship between Ocupational Stress and Job Satisfaction of faculty: the case of university of Punjab, *Human Resource Management,* **43**, 6913-6920 **(2012)**

44. GOP, *Higher Education Ordinance*. Retrieved from http://www.hec.gov.pk/MediaPublication/HECPublication/ Documents/455_HECOrdinance.pdf. **(2002)**

45. World Bank, World Bank Report on Pakistan: Country Summary of Higher Education: World Bank, (**2007)**

46. Iyer K. and Khan Z.A., Depression – A Review, *Research Journal od Recent Sciences,* **1**(4), 79-87 **(2012)**

47. ESP, *Economic Survey of Pakistan, Special Section 1: The Cost of War on Terror,* Retrieved from http://www.finance.gov.pk/survey/chapter_11/Special%20 Section_1.pdf. **(2011)**

48. KPK, Area Population, Retrieved 20 May 2011, from http://www.khyberpakhtunkhwa.gov.pk/aboutus/Area-Population.php, **(2011)**

49. Mufti I., Economic Cost of the Flood in Pakistan. 03. Retrieved from http://www.sappk.org/publications/articles/ Article_Irfan_Mufti.pdf , **(2010)**

50. Azam K., Saeed G., Ullah S., Khan A., Aamir A. and Farooq N., Competency Gap Assessment of Social Organizers: The Case of NGOs in Pakistan, *International Review of Business Research Papers,* **5**(5), 47-62 **(2009)**

51. Ahmad S., National Flood Reconstruction Plan 2010, **(2011)**

52. Azam K., Yussof R.M. and Marwat A.K., The Role of Coping Capacities in Disaster Perspective: A Case of Pakistan Flash Floods, 2010, *OIDA International Journal of Sustainable Development,* **4**(3), 109-126, **(2012)**

53. Garrett R.M., Teacher job satisfaction in developing countries, *Educational Research Supplemental Series,* Retrieved from http://www.eric.ed.gov/ PDFS/ ED459150.pdf, **(1999)**

54. Rasmussen T.H. and Jeppesen H.J., Teamwork and associated psychological factors: A review, [doi: 10.1080/02678370600920262], *Work & Stress,* **20**(2), 105-128, **(2006)**

55. Watts, J, and Robertson, N. Burnout in university teaching staff: a systematic literature review. [doi: 10.1080/00131881.2011.552235]. *Educational Research,* **53**(1), 33-50, **(2011)**

56. Akbar A. and Akhtar W., Faculty Stress at Higher Education: A study on the Business Schools of Pakistan Paper presented at the World Academy of Science, Engineering and Technology, **(2011)**

57. Manzoor M.U., Usman M., Naseem M.A. and Shafiq M.M., A study of Job Stress and Job satisfication among Universities Faculty in Lahore Pakistan, *Global Journal of Management and Business Research,* **11**(9), 12-16 **(2011)**

58. Usman A., Ahmed Z., Ahmed I. and Akhtar Z., Work Stress Experienced by the Teaching Staff og University of the Punjab, Pakistan: Antecedents and consequences, *International Journal of Business and Social Science,* **2**(8), 202-210, **(2011)**

59. Agbatogun A.O., Teachers' Management of Stress Using Information and Electronic Technologies, *Journal of Social Science,* **24**(1), 1-7 **(2010)**

60. Klassen R.M., Teacher Stress: The Mediating Role of Collective Efficacy Beliefs, [doi:

10.1080/00220670903383069], *The Journal of Educational Research,* **103(5)**, 342-350 **(2010)**

61. Chaplain R.P., Stress and psychological distress among trainee secondary teachers in England, [doi: 10.1080/01443410701491858], *Educational Psychology,* **28(2)**, 195-209 **(2008)**

62. Shirom A., Reflections on the study of burnout The views expressed in Work & Stress commentaries are those of the author(s), and do not necessarily represent those of any other person or organization, or of the journal. [doi: 10.1080/02678370500376649], *Work & Stress,* **19(3)**, 263-270 **(2005)**

63. Lackritz J.R., Exploring burnout among university faculty: incidence, performance, and demographic issues, [doi: 10.1016/j.tate.2004.07.002], *Teaching and Teacher Education,* **20(7)**, 713-729 **(2004)**

64. Zembylas M. and Papanastasiou E., Job satisfaction among school teachers in Cyprus, *Journal of Educational Adminstration,* **42**, 357-374 **(2004)**

65. Gillespie N.A., Walsh M., Winefield A.H., Dua J. and Stough C., Occupational stress in universities: Staff perceptions of the causes, consequences and moderators of stress, [doi: 10.1080/02678370117944], *Work & Stress,* **15(1),** 53-72 **(2001)**

66. Byrne B.M., Burnout: Investigating the Impact of Background Variables for Elementary, Intermediate, Secondary, and University Educators. *Teaching and Teacher Education,* **7(2),** 197-209, **(1991)**

67. Hanif R., Role of self efficacy in Teacher Stress and Job Performance of Women School teachers. Paper presented at the 28th ISPA Colloquium, Hangzhau, China **(2010)**

68. Moore W., Teachers and stress pressure of life at the chalkface, from http://www.timesofmalta.com/articles/view/20070831/education/teachers-and-stress-pressures-of-life-at-the-chalkface.6503, **(2005)**